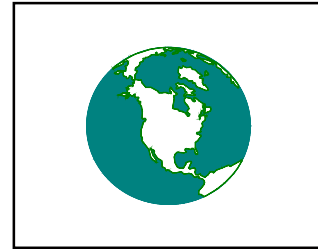


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CAR LINES

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EUROPE

1. 'Impossible-To-Cheat' Emissions Tests Show Almost All New Diesels Still Dirty

Emissions tests that are impossible for carmakers to cheat show that almost all diesel car models launched in Europe since the “dieselgate” scandal remain highly polluting. The test uses a beam of light to analyze the exhaust plume of a car as it passes and automatic number plate recognition to link the measurement to a specific model. More than 370,000 such measurements taken in the UK, France and other countries have been compiled into new rating system called The Real Urban Emissions Initiative (True) and made available to the public recently.

Volkswagen was exposed as cheating emissions tests in September 2015. But almost all car manufacturers were producing diesels that emitted far more in real-world driving conditions than in official lab-based tests. This was done by optimizing vehicles to pass standardized tests, but the beam test is conducted as cars pass and so cannot be manipulated.

The True analysis shows that new diesel models released in 2016 were still on average five over times above the EU's official baseline limit of 0.08mg of nitrogen oxides (NOx) per kilometer. The 2017 models were a little cleaner, but still nearly four times over.

NOx pollution is at illegally high levels in numerous EU nations. It is estimated to cause 23,500 early deaths a year in the UK, where government plans to cut pollution have been repeatedly ruled so inadequate as to be illegal. Separate research published recently calculates that diesel cars and vans, which make up less than half the UK's fleet, cause 88% of the health damage from light vehicles.

The beam tests are continuing and will be able to single out highly polluting models in future. “I see this remote sensing mostly as a screening tool, to see which vehicle models behave suspiciously,” said Peter Mock, at the International Council on Clean Transportation which produced the True rating in partnership with the FIA Foundation and other groups.

Those models highlighted as highly polluting could then be tested by putting a portable emissions measuring system (PEMS) on a car, which is more accurate but also much more expensive. Diesel cars shown by the True data to emit far more NOx than the official baseline when on the road included two-liter Fiat Chrysler models – 18 times more – and 1.6-litre Renault Nissan models – 14 times more – though the cars passed legally required tests.

“If I was a customer, I would look at these figures at the moment and have to conclude I should not buy a diesel car,” Mock said, noting that the petrol versions are far cleaner. “Even Euro 6 [the most recent standard] diesel vehicles are not performing well at the moment so pretty much all of them should not have access to city centers.”

Greg Archer, at campaign group Transport & Environment, which is part of the True initiative, said: “The True rating exposes the legacy of dieselgate – tens of millions of dirty diesels that are still on the roads producing the toxic smog we daily breathe. It identifies the worst performing models and regulators must act to require carmakers to clean these up.”

The True rating is a “brilliant” screening tool and good at monitoring pollution from cars as they get older and enter the used car market, said Nick Molden, chief executive of Emissions Analytics,

which performs 300-400 PEMS tests every year on new car models and publishes another rating system called the Equa index.

But Molden cautioned that the True rating system, which averages the same models across several years, will not show when the latest model has radically cut its pollution. He cites the example of a Mercedes model that improved significantly between 2014 and 2017: “It went from quite dirty to really quite clean.”

Since September 2017, new cars have had to pass a road-based test, but an EU compromise with the industry means emissions can still legally be double the baseline limit. Molden said car manufacturers are now very wary of being caught launching cars that fail emissions tests and some new diesel models are very clean, sometimes 50% below the baseline.

A new analysis of the health impact of diesel in the UK was conducted by experts at the University of Oxford and University of Bath in advance of Clean Air day 2018 on 21 June. They used data on the number of vehicles and mileage, along with government estimates of the harm caused by pollution.

The researchers found the health damage from diesel vehicle emissions are about 20 times greater than from electric vehicles and five times more than petrol vehicles. Christian Brand, at the University of Oxford, said: “Cars and vans are responsible for 10,000 early deaths each year, and diesel vehicles are the main problem unfortunately.”

2. Agriculture and Transport Emissions Pose Problems in Meeting Agreed Limits

Emissions from agriculture and transport continue to pose problems for European Union Member States in meeting EU and United Nations air pollution limits, according to updated data published by the European Environment Agency (EEA). While emissions of most air pollutants remain on a downward trend, ammonia emissions continued to rise in 2016.

The EEA briefing, ‘National Emission Ceilings (NEC) Directive reporting status 2018’ presents progress made by the EU and its Member States in meeting the emission ceilings that are applicable since 2010 set out in the NEC Directive (2016/2284/EU). The EU legislation restricts emissions for four key air pollutants from 2010 onward; nitrogen oxides (NO_x), non-methane volatile organic compounds (NMVOCs), sulfur dioxide (SO₂), and ammonia (NH₃), and from 2020 also for fine particulate matter (PM_{2.5}).

Six EU Member States exceeded ceilings for one or more pollutants in 2016. Austria and Ireland exceeded ceilings for NO_x and NH₃. Croatia, Germany and Spain exceeded their ceiling for NH₃. Hungary exceeded its ceiling for NMVOCs. The NEC Directive allows Member States to ‘adjust’ the reported emissions in their inventories downwards for compliance checking with the emission ceilings if certain conditions are met. The numbers of exceeded ceilings described in the EEA’s briefing will be lower if the applications received from countries are officially approved by the European Commission later in 2018. The EEA briefing also includes an update of projected emissions reported by EU Member States for 2020 and 2030 under the NEC Directive in relation to their individual reduction commitments set in the NEC Directive for these years.

A separate EEA report on updated data from the annual European Union emission inventory report 1990-2016 under the UNECE Convention on Long-range Transboundary Air Pollution (LRTAP) shows that for the third consecutive year, ammonia emissions have increased — by 0.4% between 2015 and 2016. The overwhelming majority of NH₃ emissions come from Europe’s

agriculture sector. Emissions increased in 15 EU Member States with Italy, the United Kingdom and Ireland reporting the highest increases.

Emissions of nitrogen oxides (NO_x) and sulfur oxides (SO_x) dropped by 3.7% and 15.1%, respectively, across the EU, according to the EEA report, which tracks the emissions of key air pollutants over past years. The report is also submitted by the EU to the UNECE under the requirements of the Gothenburg Protocol to the LRTAP Convention, which aims to limit, and as far as possible, gradually reduce and prevent air pollution. The protocol also sets emission 'ceilings' or limits for a range of air pollutants that have to be met from 2010 onwards, which for Member States are either equivalent to or less ambitious than those specified for 2010 in the European Union NEC Directive.

Air pollution is the single largest environmental risk to human health in Europe, causing respiratory problems and shortening lifespans. Poor air quality caused by air pollution can also harm vegetation and sensitive ecosystems. Moreover, several air pollutants also contribute to climate change.

In general, the road transport sector is the largest contributor to total nitrogen dioxide emissions in the EU, while fuel combustion in the commercial, institutional and households sector is the largest contributor to total primary particulate matter emissions, particularly in some eastern European countries.

Encouraging the use of cycling, improving public transport and shifting to less polluting fuels are some of the top measures EU Member States are using to reduce emissions and impacts of those two most harmful air pollutants, according to a second new EEA briefing 'Improving Europe's air quality – measures reported by countries'.

Transport and, more specifically, traffic-related measures are the key focus of Europe-wide efforts to improve air quality, according to the briefing. Almost 50% of the total number of measures used in tackling particulate matter reported by Member States target road transport, followed by commercial and residential combustion sectors, and industry. For nitrogen dioxide, more than 60% of the measures reported mainly target the road transport sector. Industry and the commercial and residential combustion sectors are the second and third most targeted sectors.

The briefing complements the EEA's annual air quality report, an updated version of which will be published later in 2018. While air quality in Europe is slowly improving, high concentrations of air pollution still have significant health impacts on Europeans. Particulate matter, nitrogen dioxide and ground-level ozone are the pollutants that cause the biggest harm to health. Member States must put in place and report on measures to improve air quality in areas where EU standards are exceeded.

3. UK Car Buyers Face 'Lottery' With Both Ultra-Clean and Ultra-Dirty Diesels on Sale

Ultra-dirty new diesel engines are being sold alongside ultra-clean models in the UK, according to new data, leaving car buyers facing what experts call a "nightmare". On-the-road tests by testing firm Emissions Analytics found that new models of Mercedes-Benz CLS, Seat Arona and Citroen DS 7 produced tiny amounts of pollution, up to 75% below the official EU limit.

However, other new diesel models launched in 2017 and 2018 legally pumped out vastly more nitrogen oxide fumes when on the road, having passed a lab-based test. These include a Nissan

X-Trail, Ford Kuga and Dacia Duster, with the X-Trail more than 15 times the lab-based official limit.

The discrepancy between the most and least polluting has never been higher, said Nick Molden, CEO of Emissions Analytics, with the worst 10% of cars now 32 times more polluting than the best 10%. "It is a nightmare for car buyers – more of a lottery than it ever has been – and also for city authorities too," he said.

The dieselgate scandal erupted in 2015, when Volkswagen was exposed as cheating the lab-based emissions tests. But new EU regulations, including a more realistic on-the-road test, are only being phased in slowly. Molden said this is why both clean and dirty models continue to be sold today.

Sales of diesel cars in the UK have plummeted in the last year, which Molden blamed on the failure to ban the dirty models. "Paradoxically, not forcing them from sale is leading to all diesels – clean or dirty – effectively being forced from sale by consumers not buying them," he said.

Nitrogen dioxide levels are at illegal levels in most urban areas and result in 23,500 premature deaths a year, according to figures from the government, which has been repeatedly beaten in court over the breaches.

Diesel cars produce less carbon dioxide per kilometer than petrol cars and could help curb the rising transport emissions that threaten climate change targets. The cleanest diesel models demonstrate that nitrogen dioxide can be effectively controlled, but Molden said that the simultaneous sale of clean and dirty models could see all of them excluded from city centers: "Policy makers would be forgiven for simply banning all diesels from urban locations."

"It is not enough to know that clean diesels exist, it is necessary to know which are which, model year by model year," said Molden. Cars' pollution ratings are given by the free Equa Index website, which uses Emissions Analytics data.

4. German Cities Free to Ban Older Diesel Cars Immediately

German cities are entitled to ban older diesel vehicles from streets with immediate effect to bring air pollution levels in line with European Union rules, Germany's top administrative court has confirmed. The ruling came a day after the European Commission lodged a complaint with Europe's top court against Germany for its repeated failure to protect air quality in its cities.

The details of the German ruling will add to pressure on automakers to provide hardware fixes for polluting diesel models. Research firm Evercore ISI has said this could cost the industry 14.5 billion euros (\$17.1 billion).

Germany opened the door to diesel bans in February when it allowed environmental groups to sue cities that fail to enforce Europe's clean air rules, despite fierce lobbying to oppose bans from carmakers. Dozens of German cities including Hamburg, Munich and Stuttgart exceed EU limits on nitrogen oxide (NOx), known to cause respiratory disease.

In a 30-page statement on the ruling Germany's administrative court in Leipzig said there should be no grace periods for driving bans.

"Such restrictions, in their intensity, do not go beyond other passage and stopping bans as justified by road law requirements, which motorists always have to reckon with and which they principally have to accept," the court said.

Germany's move to allow cities to ban diesel engines from streets could have wide implications for the future of the industry. Bans in the home of some of the world's biggest automakers are a further blow for the sector, and an embarrassment for Chancellor Angela Merkel's government, which has faced criticism for its close ties to the industry.

Immediate driving bans on major roads or road sections would be legitimate and could affect all models excluding those meeting the latest Euro 6 emissions standards, the ruling statement said. Of the 15 million diesel cars on Germany's roads, only 2.7 million have Euro 6 technology, which was phased in in 2014.

For wider city areas encompassing a multitude of main roads and side streets, the court recommended a phased implementation of bans, starting with older cars that meet Euro 4 emissions standards. The Euro 4 standard was replaced by Euro 5 beginning in 2009.

Germany's VDA auto industry lobby urged cities to keep a sense of proportion when deciding their course of action, noting that NOx levels should fall significantly in coming months as more Euro 6 models are sold and the emissions-control software of older models is updated.

The Leipzig court had said in February that Euro 5 vehicles should not be banned until Sept. 1, 2019. Tradesmen and some residents too should be exempted, it said at the time.

The ruling is the latest regulatory action to come in the wake of Volkswagen Group's diesel emissions test-cheating scandal in 2015 and was prompted by legal action from Germany's DUH.

"The courts have been waiting for the ruling statement received today," said Remo Klinger, a lawyer representing DUH, which is pushing suits in 28 German cities including Munich and Frankfurt. "We believe that in many cases, it will swiftly come to oral hearings and rulings."

Germany's second-largest city, Hamburg, said it had started putting up signs to enforce driving bans of older diesel cars, with local authorities expecting restrictions to start taking effect soon.

5. More European Cities Get Tough on Diesel

The mayor of London and representatives of other British cities have called for a ban on sales of petrol and diesel cars to be introduced in 2030 – 10 years earlier than the earlier announcement by the UK government. Their call comes as a court in Germany has ruled that banning diesels from a historic city is a legitimate way to combat air pollution, and Milan has taken the first step towards banning diesels from the city by 2025.

These latest moves indicate a further fall in the attractiveness of diesel engines. A decade ago governments were encouraging diesels for their fuel-economy advantages, and the automotive industry said the air pollution problems caused by diesels could be overcome. But the Dieselgate scandal, a failure to fit appropriate emission controls to reduce pollution, as well as advances in hybrid and electric vehicle technology, have caused a major move away from diesel.

The UK government announced earlier this year that it planned to ban sales of fossil-fuel cars and vans by 2040, but now the mayor of London, Sadiq Khan, has said the ban should come 10

years earlier in 2030. Supported by leaders from Liverpool, Manchester, Oxford, Newcastle, Bristol and other cities, Khan said: 'Banning the sale of new petrol and diesel vehicles by 2030, providing support to deliver Clean Air Zones in cities, and introducing a national vehicle renewal scheme will dramatically improve our air quality and our health.'

Meanwhile, the mayor of Milan, Giuseppe Sala, has said a 'progressive ban' on diesels within the city center will begin in January. Sala promised a ban on all diesels entering the city center from 2025 in response to a campaign 'NO2 – no thanks' organized by T&E's Italian member Cittadini per l'Aria (Citizens for Clean Air). The campaign involved hundreds of volunteers collecting pollution measurements throughout the city and then highlighting the health problems caused by poor air.

The ban will at first cover only older diesel cars meeting Euro 0, 1, 2 and 3 standards (effectively any diesel car sold in Europe before 2006), and only Mondays-Fridays during daytime. But the restrictions will gradually get tighter, with Euro-4 diesels (sold up to 2009) banned from October 2019. While the measures are modest, Italy has the oldest average age for its national car fleet, so the first phase of the ban will affect around a third of the city's cars.

In another development related to urban air quality, a court in the north-west German city of Aachen has ruled that a ban on diesel cars in the city center is a legitimate means of tackling air pollution – indeed it is the most likely way to improve the city's air quality. The court ruled that high-polluting diesel vehicles must be banned from the city famous for the emperor Charles the Great (Charlemagne) starting in January if the city and the state of North Rhine-Westphalia do not enact other equivalent measures to reduce air pollution.

In February, Germany's highest administrative court ruled that diesel bans were both legal and effective in tackling high levels of nitrogen oxides, as long as they were applied fairly. Hamburg has since introduced a ban on pre-Euro 6 diesels from using one of the city's main roads. Earlier in June the court also confirmed that Stuttgart, the car capital of Germany, is allowed to enact a diesel ban.

6. Governments Deeply Divided Over EU Car CO2 Emissions Limits

An EU Council summit revealed stark divisions on EU transport policy, with some ministers warning that asking car makers to cut CO2 output by 30% represents a mortal threat to the industry, while others cautioned that anything short of a legal requirement to cut emissions by half would be a betrayal of Europe's commitments under the Paris agreement.

The EU executive has proposed that the upper limit for average emissions of newly registered vehicles – currently 95g per kilometer for passenger cars and 147g for vans – should be 30% lower by 2030, with half of the reduction to be in effect by 2025.

As environment ministers debated the proposal in Luxembourg, they set out their demands. Sweden called for a legally binding cut of 25% by mid-decade, and 50% by 2030. As in the EU executive's proposal, the latter need not be legally binding, unless ministers can only agree a lower figure.

Also, in the higher ambition camp was the Netherlands, which said a binding 25% cut by 2025 was "a good start" and noted that some analysts have suggested a 60-70% cut by 2030 could produce net benefits for society.

Claude Turmes, in his first Council appearance after leaving the European Parliament to join Luxembourg's government, said Europe should go for such a target, and urged governments not to listen to the car industry lobby in the wake of the Dieselgate scandal.

Germany – which carries most weight in terms of its vote in the EU Council and the size of its automotive sector – was non-committal, however. “We generally agree with the basic structure of the Commission's proposal,” said minister Svenja Schulze. “We do not have any specific requirements for...targets...but cars and vans should make an important contribution,” she said.

Slovakia and the Czech Republic, who declared themselves world numbers one and two in terms of per capita car production, were less cagey. The limits are “over optimistic” and would penalize car makers, said the former. A 20% target for 2030 would put “sufficient pressure” on manufacturers to reduce emissions said the latter.

Italy, Denmark and France were among those calling for a headline 40% goal, although ministers had very different ideas in terms of interim targets and whether or not they should be legally binding.

There was also disagreement over the EU executive's plan to encourage the production of zero-emission vehicles. The Netherlands and Denmark demanded a stick to complement the carrot of an easing of requirements to improve the efficiency of their internal combustion driven vehicles.

Several eastern member states expressed concern about less wealthy countries becoming the dumping ground for old cars from the west of the EU, making it more difficult for them to meeting EU air quality rules.

Climate and energy commissioner Miguel Arias Cañete said this problem could be solved by imposed emissions-linked registration taxes on imported vehicles, and said the proposal was in line with the Paris Agreement and the contribution that the EU's Effort Sharing Regulation will make towards it.

Whatever target is agreed, the legislation “has to be in place very soon because manufacturers have to adjust their production chain in order to achieve it,” Cañete said.

7. Daimler's Emissions Issues Mount with Truck Engine Sale Stop

Daimler AG halted deliveries of one type of diesel engine for trucks over their emissions setup, less than a month after recalling 774,000 autos with prohibited shutoff devices. The engines, used in Mercedes-Benz trucks, could “slightly” exceed nitrogen oxide emissions limits under certain conditions, the Stuttgart, Germany-based carmaker said. Daimler, the world's biggest luxury carmaker, is also the biggest commercial vehicle manufacturer.

Daimler reported its findings to Germany's Federal Motor Transport Authority at the end of June and is in a “constructive dialog” with the watchdog.

Chief Executive Officer Dieter Zetsche escaped costly fines following talks with Transport Minister Andreas Scheuer last month, when he agreed to upgrade the diesel emissions software in Vito vans, the GLC sport utility vehicle and C-Class sedan, escaping costly fines.

“The engine was used in Mercedes-Benz trucks in Europe until 2013 and is currently only sold in non-European export markets,” the carmaker said in the statement. “Until the technical issues

have been clarified, Daimler has decided to stop supplying this engine as a precautionary measure.”

Daimler said it's talking to the transport authority about a software function system that prevents overdosing of AdBlue fluid in non-standard operating conditions, such as the use of bio-fuels. AdBlue is an additive that helps neutralize harmful exhaust gases.

Bild am Sonntag reported earlier on Daimler's issues, saying that a software function “switches off the exhaust after-treatment under certain conditions.” Daimler said this claim is “misleading.” The company, facing repeated accusations its diesel engines emit excessive pollution, has denied being complicit in the kind of cheating conducted by Volkswagen AG that led to the diesel-engine crisis three years ago.

Daimler was also sued by a shareholder last month over whether the carmaker misled investors about the severity of the diesel emissions scandal.

8. Shell CEO Calls for UK To Ban Gas/Diesel Car Sales Sooner

The UK has already decided to ban the sale of new cars and vans with internal combustion engines by 2040 but some are calling for that ban to happen sooner in order to address the persistent problem of poor air quality near many roads and highways. Recently, Ben van Beurden, CEO of Royal Dutch Shell, told The Guardian he supports the calls to move up the effective date of the ban.

“If you would bring it forward, obviously that would be welcome. I think the UK will have to go at a much higher speed than the speed the rest of the world can go.” He added that nations in Africa and Asia would necessarily move more slowly to switch to battery powered vehicles. “The world will work at different speeds,” he said

Why would the head of one of the world's largest oil companies be in favor of banning vehicles that burn gasoline and diesel? Primarily so corporations like his can gain some clarity about what their business will look like in the future so they can plan appropriately. In other words, van Beurden and Shell have accepted that the electric car revolution will be successful in time and they want to be able to transition their business model so they can benefit from it. He also thinks moving the effective date of the ban forward would force consumers to adjust their own attitudes.

In the UK, carbon emissions from the energy sector have been reduced significantly by the rise in electricity from renewable sources, which means the transportation sector is now the largest contributor to the nation's carbon problem. But the health risks associated with the nitrous oxides spewing from the nation's tailpipes are also a primary reason why the country is willing to ban the sale of cars with internal combustion engines. The government estimates the health impact from the polluted air created by tailpipe emissions costs the UK economy more than \$3 billion annually.

One aspect of the oil business many people miss is the economic activity that takes place at the places where people refuel their vehicles. In some cases, more than half the profits generated at those locations come from selling snacks, cigarettes, lottery tickets, and beverages to motorists. Shell is installing electric car chargers at its service stations in the UK in an effort to attract customers who drive plug-in hybrid and electric cars.

In the future, selling gasoline won't be enough to keep investors happy. Just as tobacco companies diversified into cosmetics, snack foods, and other industries, the oil companies are

busy re-positioning themselves for the inevitable day when gas pumps will become museum pieces.

9. Estimated Health Benefits of Exhaust Free Transport in The City of Malmö

Air pollution is responsible for one in eight premature deaths worldwide, and thereby a major threat to human health. Health impact assessments of hypothetical changes in air pollution concentrations can be used as a mean of assessing the health impacts of policy, plans and projects, and support decision-makers in choices to prevent disease.

The aim of this study¹ was to estimate health impacts attributable to a hypothetical decrease in air pollution concentrations in the city of Malmö in Southern Sweden corresponding to a policy on-road transportations without tail-pipe emissions in the municipality. We used air pollution data modelled for each of the 326,092 inhabitants in Malmö by a Gaussian dispersion model combined with an emission database with >40,000 sources. The dispersion model calculates Nitrogen Oxides (NO_x) (later transformed into Nitrogen Dioxide (NO₂)) and particulate matter with an aerodynamic diameter < 2.5 µg/m³ (PM_{2.5}) with high spatial and temporal resolution (85 m and 1 h, respectively).

The average individual reduction was 5.1 (ranging from 0.6 to 11.8) µg/m³ in NO₂, which would prevent 55 (2% of all deaths) to 93 (4%) deaths annually, depending on dose-response function used. Furthermore, we estimate that the NO₂ reduction would result in 21 (6%) fewer cases of incident asthma in children, 95 (10%) fewer children with bronchitis every year, 30 (1%) fewer hospital admissions for respiratory disease, 87(4%) fewer dementia cases, and 11(11%) fewer cases of preeclampsia every year. The average reduction in PM_{2.5} of 0.6 (ranging from 0.1 till 1.7) µg/m³ would mean that 2729 (0.3%) work days would not be lost due to sick-days and that there would be 16,472 fewer restricted activity days (0.3%) that year had all on-road transportations been without tail-pipe emissions.

Even though the estimates are sensitive to the dose-response functions used and to exposure misclassification errors, even the most conservative estimate of the number of prevented deaths is 7 times larger than the annual traffic fatalities in Malmö, indicating a substantial possibility to reduce the health burden attributed to tail-pipe emissions in the study area.

10. UK Drivers Continue to Shun Diesel in The Face of Environmental and Tax Concerns

Sales of plug-in hybrid cars soared by nearly three-quarters year on year in May, dramatically outstripping the 3.4% overall growth in new car registrations. Nearly 4,000 plug-in hybrids, which typically run for about 30 miles on a battery before a combustion engine kicks in, were bought last month, up from 2,301 in May 2017. Registrations of purely battery-powered cars, such as the Nissan Leaf, were up by nearly a fifth, to 1,099.

The numbers are still a small fraction of the total 192,649 cars bought in the month but all electrified vehicles combined, including hybrids such as the Toyota Prius, took a record market share of 5.8%.

¹ [“Estimated health benefits of exhaust free transport in the city of Malmö, Southern Sweden”](#), [Ebba Malmqvist^a](#), [Ebba Lisberg Jensen^b](#), [Karin Westerberg^b](#), [Emilie Stroh^a](#), [Ralf Rittner^a](#), [Susanna Gustafsson^c](#), [Mårten Spanne^c](#), [Henric Nilsson^c](#), [Anna Oudin^{a, d, e, f, g}](#) ^a Occupational and Environmental Medicine, Department for Laboratory Medicine, Lund University, Sweden

However, drivers' appetite for diesel cars continues to wane in the face of environmental and tax concerns, despite the industry maintaining that for many drivers they are the "right choice economically and environmentally". Diesel registrations plunged by nearly a quarter, to 62,260. The market share of diesels this year so far stands at 32.8%, compared with 44.1% in 2017.

Total new car sales growth was modest, said the Society of Motor Manufacturers and Traders. The trade body noted there had been an 8.5% decline in the previous May as sales were hit by vehicle excise duty changes and uncertainty ahead of the general election. So far this year, total sales are down by 6.8%.

11. ACEA Data Shows Western Europe Car Sales Up 5.1 Pct. In June

Car sales in Western Europe rose 5.1 percent in June and reached their highest ever level in the European Union as strong sales in Germany, France and Spain helped offset a slump in demand in Britain and Italy, industry data showed.

Passenger car registrations rose to 1.62 million vehicles in the markets of the European Union (EU) and the European Free Trade Association (EFTA), the Brussels-based Association of European Carmakers (ACEA) said, up from 1.54 million a year earlier.

Demand rose by 9.2 percent in France, 8 percent in Spain, and by 4.2 percent in Germany, Europe's largest market. By contrast, sales in the United Kingdom fell 3.5 percent and dropped by 7.3 percent in Italy, the ACEA figures showed.

Sales of Volkswagen branded cars rose by 16.3 percent, helping parent Volkswagen Group's market share to increase to 24.5 percent in June, compared with 23.4 percent in the year-earlier period.

PSA Group's Peugeot brand saw sales rise 6.9 percent, outperforming mass market rival Fiat, which saw its vehicle sales drop 9.5 percent in the same period. Fiat's market share in EU and EFTA markets has fallen to 4.9 percent from 5.5 percent a year earlier.

Among the premium auto brands, Mercedes-Benz was the biggest loser with sales dropping 7.3 percent, while rival BMW saw sales increase 9.9 percent, ACEA data showed.

12. SUV Boom Drags Diesel Out of The Doldrums in Germany

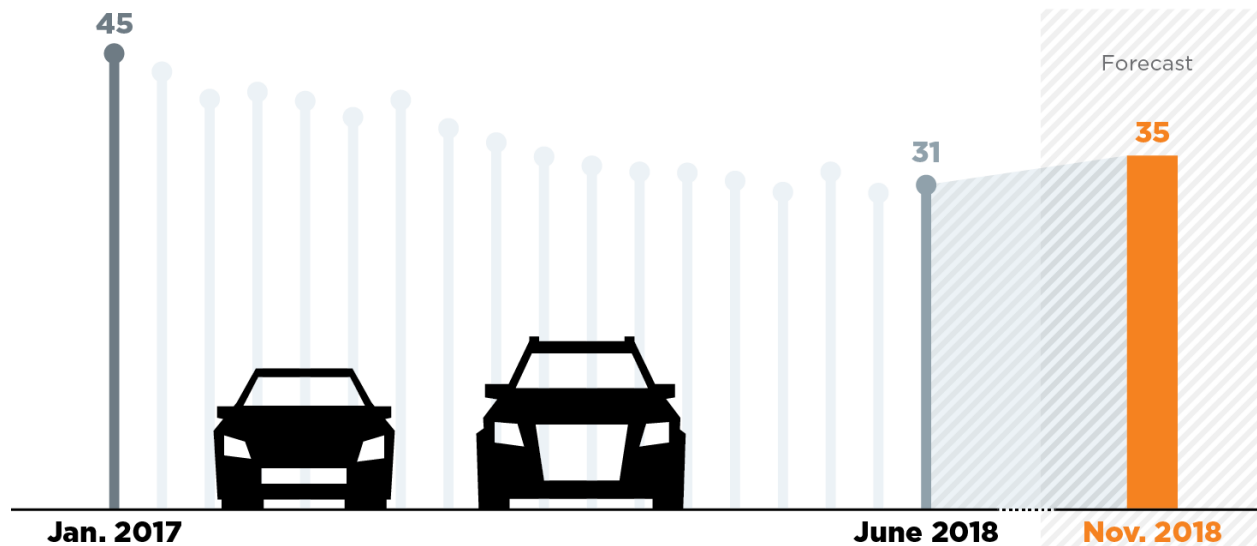
Reports of the death of diesel may, in the words of Mark Twain, have been greatly exaggerated. New figures point to a rise in sales of the technology tainted by the VW emissions-cheating scandal and the threat of driving bans in German cities.

VW's new car orders surged in the second quarter, with the share of diesel cars rising to 38 percent of the total, well above diesel's 32-percent take of new registrations in the first half of the year. That suggests diesel's share of new registrations, which typically happen a few months after the car is ordered, could rise above 35 percent in the fall. It would be the first increase after two years of steady declines.

It's likely to be a similar story at BMW and Daimler, due to release their second-quarter results in the next few days.

Trend reversal for diesel in Germany

Share of diesel engines in new registrations in percent



HANDELSBLATT

Sources: KBA, Handelsblatt Research

Diesel has been in decline ever since VW admitted using illegal software to cheat diesel emissions tests in September 2015, triggering a global scandal that has ensnared other German carmakers. Its share of new car sales in Germany fell from more than 50 percent to 45 percent in 2017 and just a third now.

But customers are now returning, especially for big and heavy vehicles such as SUVs, where diesel remains 10-15 percent more fuel efficient than gasoline. SUVs are now the fastest-growing model segment in Germany, with sales up 42 percent in the first six months of 2018 from the same period a year earlier. Big corporate fleets also remain keen on diesel because it enables them to meet EU emissions limits.

Besides, the specter of driving bans in German cities has waned in recent months. So far, only one city has imposed curbs: Hamburg, for just two streets and on old diesel vehicles. Next year, the southern city of Stuttgart intends to ban 30,000 aging cars classified as Euro 4, a basic EU emissions standard that critics say is inadequate. Automakers have also been at pains to eradicate lingering doubts by offering price discounts for new diesels and a guarantee that they'll take back newly-purchased cars if they fall under future driving bans.

Daimler is growing more confident about diesel as the carmaker says it has succeeded in implementing tougher emissions standards. A spokesman said more than 80 percent of its model portfolio already meets the new Euro 6d-temp standard that takes effect in September 2019, meaning powertrains have been adapted to stay within nitrogen oxide limits under real driving conditions as well as laboratory tests.

Daimler has fitted selective catalytic reduction (SCR) filters to cut emissions in its entire model range from the A-class compact car upwards. The filter costs up to €1,500 (\$1,756) per car, which is why many automakers are quietly ditching diesel engines from their smaller models, said industry experts.

That suggests diesel won't rise above 50 percent of new registrations again – but automakers will likely try to keep the technology as their preferred option for SUVs and large limousines for a long time to come.

Some analysts say it's too soon to sound the all-clear on diesel, though. Stefan Bratzel, head of the Center of Automotive Management at the University of Bergisch Gladbach, said the recent rise in orders shouldn't be overrated. "We need to wait and see whether this will evolve into a broader trend," he added.

The technology remains crucial because German automakers still lack electric models. Automakers say that without diesel, it will be impossible to meet the EU's CO2 ceiling coming into force in 2021, when the maximum average emission of newly registered vehicles will be 95 grams per kilometer, down from 130 grams now.

The only mass-produced purely electric vehicle on the market is BMW's "i3" launched in 2013. Audi plans to follow in late 2018 with the "Etron," followed by Mercedes with "EQ" in 2019 and VW with "i.D." from 2020.

Nevertheless, flexibility is the new priority — automakers want to avoid being as dependent on any one technology as they have been on diesel in the past. BMW plans to adapt its factories to manufacture every model with gasoline, diesel, hybrid or electric powertrains from 2021. Audi, the luxury car unit of VW, wants electric and hybrid cars to account for one-third of its sales from 2025, equivalent to the current diesel share of its new car fleet.

13. Carmakers Warn MEPs Against 'Unrealistic' EV Target

Carmakers have warned MEPs against 'unrealistic' targets for new car and van CO2 emissions reductions after their research revealed financial barriers to electric vehicle uptake. The European Automobile Manufacturers' Association (ACEA) said its analysis showed affordability remained a strong deterrent for consumers to switch to electrically-chargeable vehicles. Market share is close to 0% in countries with per capita GDP below €18,000, and no more than 0.75% in half of all member states.

The European Commission proposed the upper limit for average emissions of newly registered vehicles should be 30% lower by 2030 compared to 2021, with half of the reduction to be in effect by 2025.

Environment committee rapporteur Miriam Dalli of the S&D group favors reduction targets of 25% from 2025 and 50% from 2030, while ACEA has called for a headline 20% 2030 target.

Manufacturers that achieve a share of zero- and low-emission vehicles (ZLEV) higher than a proposed benchmark of 15% in 2025 and 30% in 2030 would be rewarded with lower CO2 targets, under an incentive in the EC proposals, while in her report Dalli set the benchmark at 50%.

The industry and transport committees are due to debate the Parliament's position next.

The industry is worried that policymakers have "unrealistic expectations" about the pace of EV market development, said ACEA secretary general Erik Jonnaert. The EC proposals would require battery electric car sales to jump from less than 1% today to 30% in under 12 years, said Jonnaert. "And the Parliament is proposing even more aggressive targets." Forced electrification, he warned, could lead to social exclusion in parts of Europe, reducing mobility.

Dalli said her report speaks of a reduction in car CO2 emissions. “It is up to manufacturers to ensure a proper mix of technologies within their fleets to reach those reductions.” A proper mix of technologies, she said, would ensure a “proper transition” to cleaner cars.

EU car manufacturers, the MEP added, need to invest in the EU. “If they continue to invest seven times more in electric vehicles production in China than in Europe, it means that the EU and its employees will be losing out.”

14. Spain Commits to Air Pollutant Limits

Spain's new government has committed to new 2020 and 2030 targets for the tightening of five atmospheric pollutant limits. Following a proposal of the ministry for ecological transition headed by Teresa Ribera, the Spanish cabinet has passed new legislation transposing the EU's 2016 National Emission Ceilings (NEC) directive into national law. The listed substances contributing to poor air quality are nitrogen oxides (NOx), non-methane volatile organic compounds (NMVOCs), sulfur dioxide (SO2), ammonia (NH3) and fine particulate matter (PM2.5).

Ribera committed to improve the country's poor environmental governance. Spain was found in breach of EU air quality standards for NO2 and PM10, although the European Commission decided not to refer it to the European Court of Justice, much to the dismay of NGOs.

With the new law, the Spanish government is also committing to the preparation of a national program for the control of atmospheric pollution. This is expected to contain measures for sectors such as agriculture, power generation, industry and road transport. It should also contribute to implementation of air quality plans established under the EU's air quality directive.

Once approved, the program must be presented to the Commission at the latest in April 2019 and will be reviewed periodically.

The Spanish ministry for ecological transition recently published data indicating that GHG emissions increased by 4.4% last year reaching 338.8 million tons of CO2, the largest increase since 2002.

15. Spanish Government Plans to Increase Diesel Tax

Spain's new ecological transition ministry is working on plans to raise fuel duty on diesel in stages to bring it into line with taxation on petrol, sources in the governing socialist party told reporters. Spain's finance minister María Jesús Montero said in parliament that the government “is following ecological transition ministry proposals on environmental taxation”, with the aim of “getting business to avoid environmentally-damaging behavior”.

The ecological transition ministry has made no official statement as yet, but the Spanish business newspaper *Expansión* quoted ministry sources as saying a rise of 10 cents per liter in diesel taxation, spread out over four years, would raise an extra €2.1 billion in revenue.

Tax on diesel in Spain currently represents 47% of the consumer price, the third lowest rate among EU states behind only Luxembourg and Bulgaria, according to European Commission data. Tax on petrol represents 52% of the consumer price, also one of the lowest rates in the EU.

Spain's recently approved 2018 budget will eliminate regional taxation on road fuels and marginally raise fuel duty in some regions.

Raising duty on diesel "would be devastating and lead to the closure of many companies especially as it follows a nine per cent rise in the price of diesel in recent months", according to Victor González, president of Fetransa, which represents small transport companies. "We want the government to extend the right to a rebate on diesel duty for professional drivers of vehicles over 2.5 tons, down from the current 7.5 tons limit," he told reporters.

16. Madrid Will Prohibit Access and Parking Without an Environmental Label

The implementation of the new residential priority zone in the center will reduce the emission of pollutants by 40%, according to the estimate of the City Council of the capital. Passage traffic in the heart of the city will decrease by 20%, through an extension to all downtown neighborhoods, including the Gran Vía, of the Residential Priority Area (APR), which will be called Madrid Central. The space reserved for parking motorcycles (2.7 linear kilometers) will also be doubled. In addition, in November the entry of all vehicles without environmental distinction will be prohibited, around 20%.

From November, all unlabeled cars and motorcycles of the General Directorate of Traffic (DGT) will not be able to access the area called Madrid Central. That is, gasoline vehicles registered before the year 2000, and diesel vehicles before 2006. The restrictions will affect between 17% and 20% of the cars in the Madrid circulation park, according to the City Council.

17. Ship Emissions More Toxic Than 30 Marsa Power Stations, Scientist Warns

The huge ships sailing or bunkering just off Malta generate more toxic emissions than the equivalent of 30 Marsa power stations – and winds regularly blow the fumes all over the island, a senior scientist has warned. Raymond Ellul, a geosciences professor at the University of Malta, has been studying ship emissions in the central Mediterranean from an isolated lighthouse-turned-lab on the Gozo coast since the mid-1990s.

He told The Sunday Times of Malta a staggering 85,000 tankers and other gigantic ships sail through the waters between Malta and Sicily annually, making this one of the busiest shipping regions in the world. The monitoring of maritime traffic shows that approximately 200 ships sail by the island every day, with a collective engine capacity equal to around 33 of the now-defunct Marsa power stations.

"This is literally like having a power station sailing just past the island every few minutes, perhaps worse," he said, his finger following the dramatic up-and-down peaks on his emissions readings. Prof. Ellul was quick to add that the island's old power stations, Marsa and BWSC – once dubbed a "cancer factory" – were actually far cleaner than the ships just off the coast. The old power stations, he said, had been kitted out with emissions-reducing technology over the years – something few shipping companies splurged for.

The scientist lamented that due to lax shipping regulations in the Mediterranean, shipping vessels were still allowed to run on pollution-rich heavy fuel oil – the carcinogenic residue that refineries are left with after making much cleaner fuels such as marine diesel.

Malta is on a marine traffic highway... and the bulk of these ships are using highly polluting fuel

“Not long ago I had Cabinet ministers sat right here in my office. I told them about these findings, and that it was time to lobby for change,” Prof. Ellul said. The change the professor is calling for is that the dense shipping region around Malta be made into what is known as a controlled emissions area, like the North and Baltic Seas – where ships are not allowed to run on heavy polluters like HFO.

Prof. Ellul’s call to action comes after The Sunday Times of Malta reported earlier this month on the €24 million annual health bill that taxpayers are footing as a result of the invisible cloud of toxins coming from ships berthed in the Grand Harbour. According to a shelved government report seen by the press, the pollution, known as particulate matter, not only damages people’s health, but also crops. It even has an impact on architectural heritage.

The chemicals coming from ships in the Grand Harbour, mostly cruise liners, are now being studied by the whistleblower behind the Volkswagen emissions scandal, Axel Friedrich. Mr. Friedrich, a former German environmental regulator, has found that the air around Valletta is reaching toxic levels 10 times higher than the island’s most congested roads.

It turns out, however, that cruise ships only account for around one per cent of the shipping emissions in the waters just off Malta, with tankers and cargo ships coughing out the largest clouds of killer chemicals.

Pointing to a tiny sliver on a pie chart, Prof. Ellul said: “That, just that small bit there, represents the emissions coming from cruise ships. All the rest comes from tankers and cargo ships”.

The veteran scientist, who has worked with Nobel Prize winners, said most Maltese were blissfully unaware of the pollution coming from the shipping industry. “Put it this way – if you were concerned about air pollution, you probably wouldn’t want to buy a house along a busy road, would you?” “Well, Malta is on a marine traffic highway – one of the busiest in the world – and the bulk of these ships are using highly polluting fuel, with the exhaust spreading all over the island,” he said.

According to the European Environment Agency, 60,000 people die every year as a result of shipping emissions.

Air pollution in Malta has long been on the agenda, as the island continues to have some of the worst air in Europe. Earlier this year the European Environment Agency found only the Bulgarians, Poles and Greeks breathed dirtier air than the Maltese.

NORTH AMERICA

18. Pruitt Resigns in Disgrace Amid Ethics Scandals, Wheeler Acting EPA Chief

Scott Pruitt has resigned as EPA administrator following a long series of ethics and spending scandals, leaving Deputy Administrator Andrew Wheeler to step into the role of acting administrator, President Donald Trump announced July 5. Announcing the move by tweet, Trump posted that Wheeler will become acting administrator effective July 9.

“I have accepted the resignation of Scott Pruitt as the Administrator of the Environmental Protection Agency. Within the Agency Scott has done an outstanding job, and I will always be thankful to him for this. The Senate confirmed Deputy at EPA, Andrew Wheeler, will on Monday assume duties as the acting Administrator of the EPA. I have no doubt that Andy will continue on

with our great and lasting EPA agenda. We have made tremendous progress and the future of the EPA is very bright!” Trump wrote.

Pruitt was sworn in as EPA chief on Feb. 17, 2017 and faced calls in recent months from many Democrats and some Republicans to step down amid a number of scandals.

From lobbying the fast-food company Chick-fil-A on behalf of his wife, to demanding his staff acquire a mattress from a Trump Hotel – not to mention the millions of taxpayer dollars spent on security, first-class travel and soundproof booths – Pruitt’s behavior clashed spectacularly with any pretense of Trump’s pledge to “drain the swamp” in Washington.

But the lasting legacy of the former Oklahoma attorney general – who was picked by Trump after crusading against what he called the EPA’s “activist agenda” – is likely to be felt in the systematic weakening of environmental regulations.

While not as eye-catching as, for example, his demand that his official vehicle use sirens so he could reach a French restaurant on time, Pruitt’s actions at the EPA have left behind a demoralized agency where staff fret that their ability to protect public health has been diminished.

A staunch ally of oil and gas companies, Pruitt stacked EPA advisory boards with industry representatives and sought to set aside whole troves of research that link pollution to various illnesses.

He oversaw the delay or destruction of dozens of clean air and water rules, sparking legal battles with states and environmental groups. The EPA’s record in court under Pruitt was patchy but his deregulatory zeal was enough to impress Trump, who said Pruitt was doing a “fantastic job” even as scandals that sparked more than a dozen different investigations swirled around him.

Pruitt became a trusted adviser to Trump, helping convince the president the US should withdraw from the Paris climate agreement. He also continued his pre-EPA work of dismantling the Obama-era clean power plan, but from within the agency. Vehicle emissions standards were shelved.

Under Pruitt, the EPA has wiped climate change-related content from its website for an “update” that has lasted for more than a year. Pruitt himself has derided the accepted science of climate change and even advocated for a televised debate on the issue between scientists and deniers.

Pruitt proposed looser safety rules for chemical plants and halted a planned ban on chlorpyrifos, an insecticide linked to developmental problems in children, after being directly lobbied by Dow Chemical, which sells the product under the trade name Lorsban.

Enforcement of environmental crimes that foul the air and water also fell under Pruitt, with industries afforded an unusual level of deference. In his final days as EPA chief, Pruitt was seeking to sign away the EPA’s right to veto certain projects that cause major harm to the environment.

Proposed EPA budgets under Pruitt were draconian. Funding for toxic clean-ups – supposedly a priority for Pruitt – was winnowed away, money for the remediation of lead poisoning, a looming issue in the wake of the water supply disaster in Flint, Michigan, was slashed. Every vestige of action, research or even mention of climate change scrapped.

These cuts didn't find support in Congress, where even Pruitt's staunchest supporters began to wobble as the scandals mounted. Most Republicans shared Pruitt's view that the EPA had become overbearing and a burden upon business – he repeatedly, erroneously claimed “every puddle” in the US was regulated by clean water rules – but lawmakers were too squeamish about the deep cuts to basic environmental protection put forward by the administrator.

Pruitt's impact, however, has been significant. At a time when the US needs to accelerate its emissions cuts to stave off the worst calamities associated with climate change, the national response has been eviscerated.

Many of the rule rollbacks instigated by Pruitt still need to be completed, which is why green groups are worried about his replacement. Wheeler is known as a technocrat who is well-versed in DC politics. He's unlikely to have quite the same appetite for scandal as his predecessor, but Pruitt's agenda will continue, just without any of the high-profile ethical abuses. He is a former Republican staffer for Sen. James Inhofe (R-OK) and coal industry lobbyist and will now be responsible for implementing Pruitt's initiatives.

19. Recent Developments Regarding EPA/CARB/DOT Fuel Economy/GHG Rules

Automakers Renew Hopes for Vehicle GHG Deal After White House Talks

Automakers and the Trump administration are reiterating their hopes for a negotiated agreement on vehicle fuel economy and greenhouse gas rules, following a high-profile May 11 meeting of auto executives and President Donald Trump that included few new public details of the two sides' positions.

In a statement released after the meeting, the presidents of the two top automaker trade groups noted that the Trump administration will soon release a regulatory plan with a “range of proposals” for future fuel economy and GHG rules, and that industry would provide input on the plan.

They also thanked Trump for his “openness to a discussion with California on an expedited basis.”

One source said there are indications that the White House directed EPA Administrator Scott Pruitt and Transportation Secretary Elaine Chao to work with California on a deal. However, Trump officials, industry and California continue to send signals that such a deal might ultimately not be reached -- and supporters of the Obama-era standards are beginning to lay the groundwork for arguments that the administration and the auto industry would be at fault for splintering the current coordinated set of regulations.

During her May 11 daily briefing, White House Press Secretary Sarah Sanders was asked if Trump has agreed to negotiate with California on the rules. In response, she said, “We haven't finalized what that looks like, but today was part of that conversation, part of the discussion on how best to move forward. We are going to continue those conversations, [and] as we have a specific policy announcement on that front we will let you know.”

The White House meeting comes as the administration has decided to weaken the Obama-era GHG standards for model years 2022-2025, which align with California's rules. They are weighing a draft proposal that would freeze the standards at MY20 levels and block California's authority to enforce its own GHG standards.

That has prompted significant concerns from California and other states, as well as Democratic lawmakers and environmentalists. California and 16 other states are suing EPA over its decision to roll back the Obama rules. The state is also considering an amendment to its state rules that automakers would only be “deemed to comply” with the state standards if their vehicles meet current national limits, not any weaker federal standard. If adopted, that would end the current “one national program” of EPA and California regulations for GHGs and Transportation Department (DOT) fuel economy standards -- a step that automakers fear would create regulatory confusion and increase compliance costs.

Ahead of the May 11 White House meeting -- much of which was conducted behind closed doors -- Fiat Chrysler CEO Sergio Marchionne told reporters that his company is “fully supportive” of Trump's efforts to revise the regulations, but that he also hopes for “an agreed way forward” on changes that avoids a full-scale battle with California.

In a statement, the White House said Trump looked forward to a “productive” meeting with executives from 10 major automakers about the fuel economy and GHG rules. He hoped to hear about the effect of the administration's planned rulemaking to change those standards, as well as “their efforts to negotiate a 'National Program' with the state of California.”

However, other reports emerging from the meeting say it focused largely on trade issues, with Trump telling pool reporters at the start of the hour-long meeting that the North American Free Trade Agreement (NAFTA) “has been a horrible, horrible disaster for this country. And we'll see if we can make it reasonable.” Automakers strongly want to preserve NAFTA, given that their production processes include facilities throughout Mexico, the United States and Canada.

The industry and administration messages on reaching a fuel economy deal with California are consistent with earlier remarks from a top auto industry official. Mitch Bainwol, the head of the Alliance of Automobile Manufacturers, recently told reporters that industry would “love to see a negotiated settlement. It is what minimizes regulatory friction, it provides long-term certainty for us.” Bainwol added that “the politics, admittedly, is rough” but said the “logic of a deal is fairly compelling and the substance, the gap, is really much more narrow than the politics around the deal would suggest.”

Nevertheless, there are signs that a deal might be out of reach, and environmental and consumer groups are signaling that they will sharply criticize automakers if they accede to any Trump rollback.

For example, the Sierra Club in a May 11 statement noted that the auto sector asked the administration to reopen the rules for MY22-25 vehicles, even though industry officials are now expressing unease at the draft Trump plan to freeze those standards at MY20 levels and block California's authority. “Ford and other automakers have made their bed, but now, after witnessing the massive backlash from the American people and are already seeing legal action taken to protect the standards, are trying to remake it,” the group said. “The American people and experts have spoken loud and clear: there cannot be any going back from the existing clean car standards.”

Similarly, Public Citizen -- a group that has long criticized automakers for lagging on fuel economy and safety issues -- alleged that automakers are crying “crocodile tears” about the draft Trump plan and that they have long been laying the groundwork for a regulatory rollback. During the May 11 meeting, the group drove a Ford Focus around Washington, D.C., after outfitting the car with a cloud of black smoke and money spewing from the gas tank. “Automakers wasted no time

rushing to Washington with their deregulatory wish list after Trump's election," the group said in a statement. "Now they're rushing to Washington, D.C., again, this time to try to distance themselves from the administration's deeply unpopular clean cars rollback."

California has said it would be open to "minor" changes to the standards, particularly to reward sales of electric cars and other advanced vehicles. In addition, some automakers have asked for more compliance "flexibility" while retaining the broad GHG and fuel economy goals set by the Obama administration.

However, several news reports have said the Trump administration is irked that industry is not more fully backing its plan to freeze the standards, suggesting that it might push the sector to take a more hard-line position.

And some conservative groups also are urging the president to take an aggressive stance. A May 10 open letter to Trump from his transition chiefs for EPA, DOT and the Energy Department (DOE) urged him to "dismiss" automakers' concern about a protracted legal fight with California. "We agree that in an ideal world, California would negotiate with you in good faith, but we all know that is not a reality in this current political climate," the letter says. It adds that if there is to be a national standard, "it makes more sense for that standard to be set by the federal government and not by one state government. But that is what is likely to happen if you change direction now." The letter was signed by Thomas Pyle of the Institute for Energy Research who headed Trump's transition at DOE, Myron Ebell of the Competitive Enterprise Institute who headed the team at EPA, and Shirley Ybarra, a former Virginia transportation secretary who led the DOT team.

In addition, conservative groups calling for a rollback are already blaming California for not negotiating in "good faith."

EPA Indicates It Intends to Schedule Fuel Economy Talks with California

The EPA wants to continue negotiations with California over national fuel economy standards and is working to set up more discussions, the agency's top air official told lawmakers May 16.

The agency is working on a proposal to change vehicle fuel economy and carbon dioxide emissions regulations, according to William Wehrum, assistant administrator at the Environmental Protection Agency's Office of Air and Radiation. He spoke during a House Energy and Commerce subcommittee hearing on unrelated air pollution legislation.

Changes to the federal program could conflict with California's own regulations, which are aligned with the current federal targets. California has already filed suit challenging EPA Administrator Scott Pruitt's April decision that existing requirements for cars and light trucks are too strict and must be revised.

The Obama-era targets aim to cut carbon dioxide emissions by boosting the average fuel economy of cars and light trucks to more than 50 miles per gallon by 2025.

California is allowed under federal law to set its own vehicle standards, though its state rules are currently aligned with Obama-era federal targets. California's standards have been adopted by a dozen states, including New York and Pennsylvania.

Wehrum said he recognized the importance of having one national standard, but the Trump administration thinks "changes need to be made."

The Environmental Protection Agency is working to set up discussions with representatives from the California Air Resources Board while they are in Washington, Wehrum said. "It's a priority of my office, and I believe a priority of the administration, to try to maintain one national program," Wehrum said. "We're going to keep trying."

Rep. Debbie Dingell (D-Mich.) stressed the need for one set of standards that apply nationwide, rather than differing standards depending on the state. "The auto industry needs stability," Dingell said. "They need to know where they're going."

However, EPA Has Delayed Any Substantive Talks

Talks between the U.S. and California on auto emissions standards have made little progress since President Donald Trump told his agencies to pursue a deal, according to Mary Nichols, chair of the California Air Resources Board. Further, she said that the Environmental Protection Agency hasn't weighed in with its own technical analysis to underpin the administration's proposed changes to fuel economy and tailpipe emissions rules. She said she's hopeful this will change after the departure of Administrator Scott Pruitt.

As noted above, in a White House meeting with top auto industry executives, Trump told federal regulators to seek a deal with officials from the state. Such talks have not occurred, Nichols said. "There has been no substantive progress on that at all since the time that the president spoke with the companies," she said. During a meeting in San Francisco on June 29, Pruitt said discussions about the vehicle rules ought to take place **after** the federal agencies release their proposal, according to Nichols. That document could be released in the coming weeks.

Pruitt's resignation won't have an immediate impact, but his replacement, Acting EPA Administrator Andrew Wheeler, may give the agency a chance to change course, Nichols said. "The key question is whether bringing in a new administrator will cause the EPA to decide they should take another look at the situation and see if they want to more active in trying to use their resources, which are considerable, to develop alternative proposals," Nichols said.

The White House's Office of Management and Budget is reviewing joint proposals by the EPA and National Highway Traffic Safety Administration to weaken federal auto efficiency standards. The proposals also call for revoking California's authority to set its own limits on vehicle emissions a move the state is vowing to fight in court.

In August, California plans to propose revoking the ability of carmakers to automatically comply with California's tailpipe standards if they meet EPA's rules, Nichols said. "If the federal rules go away, we then will be faced with a situation where we can't any longer accept compliance with the federal rules as equivalent to California," she said. "We have to take action to protect ourselves against that eventuality."

Nichols decried a lack of rigor and analysis in the EPA's work under Pruitt compared with prior administrations. She said the EPA had the credibility and confidence to negotiate with industry because of its vast in-house expertise. Officials were able to independently verify industry information and go beyond it to bring their own analysis to bear on talks.

During the Obama administration's development of national standards, the EPA drew on expertise from the national laboratories and industry consultants, who "were able to literally take apart and cost out every single piece of a car that could possibly have an impact on fuel economy, in order

to make a finding that the standards that were adopted were cost effective and technically feasible,” she said.

She said the EPA showed none of this rigor under Pruitt in its midterm review of automotive greenhouse gas emissions, which was published in April. “It was really a very depressing situation from the perspective of those of us who have worked with EPA over the years,” she said.

Industry Appears to Be Having Second Thoughts

“The assault on the American auto industry is over,” President Trump declared last spring in Detroit, promising auto executives that he would throttle back Obama-era regulations on vehicle pollution. The moment embodied one of Mr. Trump’s main political promises — to promote pro-business policies that unshackle industry and the economy.

Even as the president’s pro-business stance is broadly embraced by the corporate community, in some significant cases the very industries that Mr. Trump has vowed to help say that his proposals will actually hurt them.

Automakers had sought looser emissions rules. However, Mr. Trump’s proposed rollback goes further than expected, and now automakers say it could ultimately spawn years of legal battles and perhaps even subject the industry to more regulations, not fewer, if individual states start enforcing their own, separate rules. They also fear that Mr. Trump’s recent threats to impose tariffs on imports of European autos could trigger a trade war, raising prices for all vehicles.

In one recent meeting with Mr. Trump, the chief executive of General Motors, Mary Barra, told the president she would be happy with a deal keeping much of the current Obama-level pollution standards in place, while adding sweeteners for automakers such as financial credits for companies that invent more fuel-efficient technologies, according to two people familiar with the meeting.

General Motors also warned that Mr. Trump’s threat of tariffs on imported cars could backfire, killing American jobs and leading to “a smaller G.M.”

The Aluminum Association, which represents the bulk of the American industry, says that 97 percent of American jobs in aluminum are at what are called “downstream” businesses that shape the metal into things like auto parts or other goods. Those companies are hurt by Mr. Trump’s tariffs, because they must now pay higher prices for their raw materials.

By contrast, demand for aluminum increased under the stringent Obama-era fuel economy standards, which created a market for more lightweight cars that use aluminum rather than steel. The proposed rollback of the fuel standards will likely hurt aluminum makers, the association said, as will the prospect of a legal fight between the federal government and California, which has promised to continue to enforce the stricter, Obama-era rules.

If California enforces the stricter pollution rules, that would in effect create two separate auto markets. Several other states have pledged to follow California’s lead.

“It’s quite disruptive to the companies bringing a car to market, and it’s disruptive to all of the suppliers of the car companies,” said Doug Richman, a technical expert with the Aluminum Association.

In coming weeks, the Environmental Protection Agency and the Transportation Department are expected to jointly propose a new rule to dramatically roll back the Obama-era standard on tailpipe emissions. And Detroit is watching closely.

The Obama rule would have required automakers to roughly double the fuel economy of new cars, S.U.V.s and light trucks by 2025, achieving an average of more than 50 miles per gallon. Since Mr. Trump's inauguration, automakers have complained to him that the Obama standard was too stringent.

But the administration's current proposal would go so far in the opposite direction that, rather than simply loosening the Obama standard, it would likely set off years of litigation, creating regulatory uncertainty for automakers. The proposal, according to people who have seen it, would both cut back the standard, and would pre-empt states from setting their own standards.

That amounts to a direct challenge to California, which has a waiver under the Clean Air Act to impose its own, stricter, air pollution regulations on cars and trucks. California's governor, Jerry Brown, has made clear that he will fight in court.

If California were to prevail, that could lead to the creation of two different sets of auto pollution regulations in the United States — one for California and the dozen or so states that follow it, another for the rest of the country. Automakers describe that as a worst-case scenario they want to avoid.

"We are supporting some level of increased fuel economy year over year," said Gloria Bergquist, a spokeswoman for the Alliance of Automobile Manufacturers, which represents many of the world's largest automakers. "Our customers don't want to pay the unnecessary costs of separate regulatory proposals."

Regarding the Trump idea to place tariffs on auto imports, she said: "While we understand that the administration is working to achieve a level playing field, tariffs are not the right approach." They raise prices for car buyers, she said, "and invite retaliatory action by our trading partners."

Executives and lobbyists from the nation's Big Three auto companies have held a flurry of meetings at the White House and E.P.A., asking Mr. Trump and his officials not to move forward with the aggressive rollback of the pollution rules and instead to hammer out a deal with California, according to press reports.

EPA's New Chief to Meet California Regulator on Fuel Efficiency Plan

California's top air-quality official was expected to meet with the Environmental Protection Agency's new acting chief July 17, the first meeting between two regulators who disagree over the Trump administration's plan to weaken automobile fuel efficiency regulations.

Mary Nichols, chairman of the California Air Resources Board, said acting EPA Administrator Andrew Wheeler reached out to state officials after his appointment, and the two agreed to meet in person in Washington. Wheeler was elevated to the EPA's top post following the scandal-fueled ouster of former agency Administrator Scott Pruitt.

"I am not at the moment expecting any changes in direction or changes in policy," from Wheeler's appointment, Nichols said at an event organized by Politico. "But I hear from others who know

him he is a practical person who likes to move forward and is willing to make compromises, so I am hopeful that we'll find some things to work on together.”

20. Court Halts EPA Glider Truck Rule Delay, Pruitt's Last Act

The U.S. Court of Appeals for the District of Columbia Circuit, in a 2-1 order on July 18th, temporarily paused an attempt by the Environmental Protection Agency to allow glider kits to circumvent a 2016 regulation placing a cap on their production and sale.

The EPA's July 6 enforcement discretion memo came after the agency's efforts to repeal the regulation had stalled. The enforcement discretion action, requested by EPA air chief Bill Wehrum and approved by EPA enforcement chief Susan Bodine, was signed on Pruitt's last day in office.

The ruling is a win for environmental groups, who brought the agency to court July 17 arguing it failed to provide a sufficient rationale for allowing glider manufacturers a break from the annual 300-glider cap the Obama administration had put into place.

Glider trucks are heavy-duty freight trucks made by putting old, dirty diesel engines into a new freight truck body. They generally emit four to 40 times more nitrogen oxides and 50 to 450 times more particulate matter than new model year 2014 and 2015 trucks, EPA vehicles staff found in a Nov. 20, 2017, report. But former EPA Administrator Scott Pruitt and his team worked to eliminate the Obama-era rule, arguing the prior EPA had overstepped its authority in regulating glider vehicles as new trucks.

Scott Pruitt tried to repeal pollution standards for glider trucks after a meeting with a major glider manufacturer on May 8, 2017 – the same manufacturer who prominently hosted an event for then-candidate Donald Trump early in his presidential campaign.

“The Trump administration's decision to allow more of these dirty diesel trucks on our roads was made without any public input and with reckless disregard for the serious public health threats they will cause,” Environmental Defense Fund President Fred Krupp said in a statement about the ruling. “We're pleased the court has suspended this dangerous loophole and we look forward to presenting a strong case to the court about the need to reverse EPA's flawed decision.”

The Center for Biological Diversity and Sierra Club also joined EDF in the lawsuit.

D.C. Circuit Judges Judith Rogers and Robert Wilkins voted in favor of the temporary pause, while Thomas Griffith objected.

The court has set a July 25 deadline for the EPA to respond to environmental groups' arguments asking judges to undo the enforcement action.

21. SAB Votes to Review EPA's Science, Emissions Rules in Sign Of 'Rebuke'

EPA advisers have voted to review the science underlying agency rules aimed at rolling back a suite of Obama administration's greenhouse gas and emissions regulations, as well as a controversial proposal to require that major rules be based on publicly available science, decisions that environmentalists say amount to a “sharp rebuke” of Administrator Scott Pruitt's deregulatory agenda.

At a May 31 meeting, EPA's Science Advisory Board (SAB) voted to endorse a series of recommendations from SAB workgroups urging the full board to consider the science behind pending EPA plans to scale back light-duty vehicle GHG standards, the agency's proposal to scrap production limits on high-emitting glider trucks, EPA's plan to reconsider new source performance standards for oil and gas operations, EPA's planned repeal of the Clean Power Plan, the agency's retreat from GHG requirements for new and modified power plants, and EPA's science data rule.

The planned reviews, which impose a new level of scrutiny on key prongs in the Trump administration's deregulatory agenda, mark what may be the first instance of SAB oversight of agency regulations since the practice was instituted by the Obama administration. And they come despite suggestions by some current advisers that SAB consider deferring on issues including the power plant rules amid promises of clearer EPA communication with the board.

And in the case of the light-duty vehicle regulations, the move turned aside suggestions that SAB might want to defer a review until EPA and the Transportation Department issue a proposal in the coming weeks. While the board voted to review the rules, SAB members did not rule out sunseting their review if more information becomes available that allays their concerns.

Nevertheless, the move is significant because the meeting marked SAB's first gathering since Pruitt removed a host of board members who had received agency grant funds and replaced them with state and industry officials -- including a new chair, Michael Honeycutt -- who were widely viewed as being more supportive of the administrator's deregulatory agenda.

Prior statements from the SAB workgroups recommending review -- as well as statements by SAB officials at the meeting -- also made clear that they harbor significant concerns.

The move to review the agency's repeal of rules on high-emitting glider trucks, for example, which combine a new chassis with used engines, comes after an SAB workgroup in its recommendations blasted the apparent science underlying the rule as "dubious."

Similarly, the workgroup that recommended review of the science data rule strongly criticized the plan, charging it will undermine rules' integrity and was developed without adequate review. "The proposed rule does not include any assessment of the impact of data restrictions on existing or future regulatory programs. Without access to the restricted data, regulatory programs could become more or less stringent than they otherwise would be, with consequences for both regulatory costs and benefits," the workgroup said.

22. Pruitt's Focus On Costs In Shortened NAAQS Process Raises Legal Doubts

EPA Administrator Scott Pruitt in a new memo is dramatically shortening the process through which the agency reviews its six national ambient air quality standards (NAAQS), but his order for consideration of economic impacts as part of the review process raises legal doubts given a Supreme Court bar on weighing costs in NAAQS reviews.

Pruitt outlined the changes he wants to make in a May 10 memo to his assistant administrators, "The principles laid out in this memorandum will reform the process for setting national air quality standards in a manner consistent with cooperative federalism and the rule of law," he said in a press release. "Getting EPA and its advisors back on track with Clean Air Act requirements, statutory deadlines, and the issuance of timely implementation rules will ensure that we continue the dramatic improvement in air quality across our country."

The changes attempt to address long-running criticism from GOP lawmakers, industry groups and others about EPA's lengthy delays in meeting the Clean Air Act's mandate to review its NAAQS every five years (it's already behind schedule on the latest PM review).

It also targets complaints that the agency keeps pursuing ever-stricter NAAQS without adequate scientific justification or consideration of the adverse impacts of those standards. The Obama administration in 2015 provoked outcry from its opponents when it tightened the ozone standard to 70 parts per billion (ppb), down from the 2008 limit of 75 ppb. Critics warned it would impose massive economic harm, and Pruitt is still reconsidering that decision.

EPA says the NAAQS reforms detailed in Pruitt's memo "include incorporating important policy-relevant context, as required in the Clean Air Act, on issues like background pollution and potential adverse health, welfare, economic, energy, and social effects from strategies to attain and maintain the NAAQS." Background pollution stems from natural or foreign sources and cannot be controlled by local regulators.

The memo aims to implement a recent directive from President Donald Trump for EPA to overhaul and streamline the NAAQS review process. Trump ordered EPA to take a series of "actions" to accelerate and ease state and industry compliance with national ambient air quality standards (NAAQS), with the White House saying changes to the setting and implementation of NAAQS could end "outdated" barriers to economic growth.

Trump made no secret of the fact that he saw the NAAQS process as creating economic burdens and wanted EPA to ease them.

Under the NAAQS, states are designated as either attaining or in nonattainment with the standards and are then required to craft state implementation plans (SIPs) detailing the air pollution reduction measures they will take to meet the NAAQS. Nonattainment areas must impose stricter, potentially costly, requirements on air pollution sources. Critics say this drives businesses away from such areas and discourages investment in industrial expansions.

Led by the late Justice Antonin Scalia, the Supreme Court ruled unanimously in its 2001 decision in *Whitman v. American Trucking Associations* that EPA **cannot** consider implementation costs when setting NAAQS. But EPA appears to be trying to find ways to force consideration of economic impacts into the process, suggesting that the issue may soon find its way back into the courtroom.

The Trump and Pruitt memos also suggest a potential reduction in the scope of CASAC's independent input on the NAAQS review process. That could tee up a new set of legal fights over the scientific decisions that the agency makes in setting the standards:

EPA under both Democratic and Republican administrations has touted its scientific expertise and discretion in setting the NAAQS. And the U.S. Court of Appeals for the District of Columbia Circuit -- which hears challenges to the merits of the standards -- often defers to the agency on the scientific questions underpinning the NAAQS.

But Trump's memo could create a new legal fight over the agency's scientific reviews. It directs EPA to "examine the current NAAQS review process and develop criteria to ensure transparency in the evaluation, assessment, and characterization of scientific evidence in such reviews" and to

develop guidance “for differentiating the role of science and policy considerations in establishing NAAQS.”

Further, EPA air chief Bill Wehrum has suggested the agency could streamline NAAQS reviews by using “close enough” data, rather than “perfect” data, to justify a regulatory standard -- a bar that is all but guaranteed to face a legal challenge.

As a result, while Trump and Pruitt might be able to speed up the NAAQS process itself, the agency could be looking at several years of fresh litigation not only over the changes to the review process but also the standards that EPA issues as a result.

23. Environmentalists Seek Pre-Trial Rulings in Suits on EPA Advisers Policy

Environmentalists are urging judges in three federal courts to rule against EPA’s efforts to dismiss before trial their separate but related lawsuits over former Administrator Scott Pruitt’s October 2017 policy barring agency grant recipients from serving on EPA advisory panels. In each of the cases -- pending before federal district courts in Washington, D.C., Massachusetts and the Southern District of New York -- plaintiffs have asked judges to rule on EPA’s motions to dismiss the cases.

So far, a hearing is scheduled in just one of the cases, Union of Concerned Scientists v. EPA, set for Sept. 14 in Boston.

Meanwhile, EPA in newly filed documents continues to argue that the judges should dismiss the lawsuits. “Plaintiffs’ challenge to the EPA’s Directive founders on the shoals of multiple threshold justiciability doctrines,” says the agency’s July 11 reply brief in Physicians for Social Responsibility, et al., v. Andrew Wheeler, which is pending in the federal court in D.C.

“The Directive is a statement of policy regarding the agency’s use of its discretionary power to appoint persons to advisory committees,” the brief continues. “Plaintiffs fail to invoke any relevant law providing a meaningful standard for review of the agency’s appointment decisions and their challenge to the Directive accordingly fails by operation of section 701(a)(2) of the Administrative Procedure Act [APA]; Plaintiffs’ lawsuit concerns matters committed to agency discretion by law.”

The suits challenge Pruitt’s controversial policy barring scientists and other experts who receive agency grants from continuing to advise the agency. Plaintiffs charge that Pruitt’s directive is arbitrary and capricious under the APA and violates Office of Government Ethics (OGE) rules and implementing statutes that impose uniform federal ethics requirements on government employees, including agency advisers who are considered special government employees.

Some of the suits also charge that Pruitt’s directive violates the Federal Advisory Committee Act (FACA), as well as environmental statutes governing creation of advisory committees, saying they generally require “fair balance” in panel memberships.

In the D.C. case, EPA’s reply argues further that the suit should be dismissed for standing issues. “Most of the Plaintiffs before the Court lack standing, and even those Plaintiffs with standing to raise some issues lack standing to press claims raised in the Amended Complaint unrelated to their asserted injuries,” EPA says.

24. Trump Environmental Agenda May Lead to 80 000 Extra Deaths per Decade

Environmental policy changes proposed by the Trump administration could lead to an extra 80,000 American deaths per decade, according to two Harvard scientists. David Cutler, a public-health economist, and Francesca Dominici, a biostatistician, say that figure is 'an extremely conservative estimate' in the essay published recently in the Journal of the American Medical Association.

Rolling back the Clean Power Plan will lead to an estimated 36,000 deaths and a repeal of emission requirements for certain vehicles will lead to an estimated 14,000 deaths, they wrote. They argue that the changing policies could cause respiratory problems as well for more than one million people over a decade, many of them children.

The essay, which is not a formal peer-reviewed study, has added to a growing debate about what many see as an assault by the Trump administration on policies regarding environmental health.

Cutler and Dominici reviewed eight EPA policy actions either in progress or that have been proposed. These include a repeal of the Clean Power Plan, a rollback of Corporate Average Fuel Economy standards for automobiles and revoking the Waters of the United States Rule - which are Obama-era rules for clean air, chemical and water, respectively.

Dominici, a biostatistician at the Harvard TH Chan School of Public Health and Cutler, an economist at Harvard's Kennedy School of Government, made their calculations from health risk assessments conducted by the EPA during the Obama administration.

'A central feature of [Trump's] agenda is environmental damage: making the air dirtier and exposing people to more toxic chemicals,' the pair wrote. 'The beneficiaries, in contrast, will be a relatively few well-connected companies.'

The scientists argue that many of the repeals and rollbacks will expose Americans to atmospheric particulate matter, popularly known as smog.

Smog contains a pollutant called ozone, which has been proven to be harmful to human health. Ozone can aggravate health problems such as asthma, emphysema, chronic bronchitis and other respiratory problems. It can also reduce resistance to colds and lung infections.

The two researchers say that changes in air quality will have the most detrimental consequences on public health. They estimate that repealing Obama's Clean Power Plan alone would lead to 36,000 deaths and 630,000 cases of respiratory infection in children within the next decade. About 90 percent of the increase in respiratory ailments is attributed to a loophole that would be reopened to allow trucks that don't comply with pollution rules to remain on the road, according to the authors

25. EPA Sends Ozone NAAQS 'Good Neighbor' Rule for White House Review

EPA has sent for White House pre-publication review a proposed rule that will determine states' "good neighbor" obligations to reduce ozone-forming emissions to help other states meet the 2008 ozone national ambient air quality standard (NAAQS), though the agency has suggested there may not be a need for additional actions.

According to the White House Office of Management & Budget's (OMB) website, the agency submitted the rule for mandatory OMB review on June 18 and is aiming to release it publicly soon.

OMB review typically takes 90 days but can take much more or much less time depending on the rulemaking.

"This action will evaluate and make a determination regarding Clean Air Act section 110(a)(2)(D)(i)(I) ('good neighbor') obligations for the 2008 ozone NAAQS" of 75 parts per billion (ppb), says an entry on OMB's website. The air law section at issue requires EPA and states to address and reduce interstate transport of air pollution from upwind states that hinders downwind states' ability to attain NAAQS, such as the ozone limit.

To help states attain the 2008 ozone standard, the Obama administration updated its Cross-State Air Pollution Rule (CSAPR) cap-and-trade emissions program to further reduce ozone-forming air pollution. But that program only applies in 21 eastern states, and EPA has faced calls to take more steps to help reduce ozone.

However, Stephen Page, director of EPA's Office of Air Quality Planning and Standards, in a policy memo late last year hinted that there might not be a need for any additional steps to meet the good neighbor obligation for the 2008 standard. In an Oct. 27 policy memo to EPA regional air division directors, Page indicated that by 2023, all areas outside California would attain the 2008 NAAQS. At the time, his finding appeared to largely negate the need for tougher interstate air pollution controls beyond EPA's CSAPR update.

Page wrote that the information in the memo is intended to "assist states' efforts to develop, supplement or resubmit good neighbor" state implementation plans -- air pollution reduction plans states craft detailing how they intend to attain NAAQS. However, Page also wrote that the memo "is not a final determination regarding states' remaining obligations," suggesting EPA's rule undergoing OMB review will be that final step.

Northeastern and Mid-Atlantic states have faulted what they see as EPA's overly optimistic projections that no areas outside California are likely to exceed the 2008 ozone air standard in 2023 and continue to call on the agency to instead pursue a "full remedy" new federal policy to curb interstate ozone transport.

But Page's memo hints that the pending proposal could find that the good neighbor obligation for the 2008 ozone NAAQS has been met, and that no new broad federal rule is necessary.

EPA is pursuing the rulemaking -- with a goal of issuing a final version by December -- at the same time as it works to implement the 2015 ozone NAAQS, which the Obama administration tightened to 70 ppb.

Pruitt has criticized the decision to tighten the limit and is reconsidering it, but observers have suggested that EPA might make any changes to the standard through the next Clean Air Act-mandated review of the NAAQS which is slated for completion in 2020, rather than an elaborate reconsideration process that could require an extensive new scientific and legal record to defend.

26. EPA's 2019 RFS Biofuels Boost Fails to Quell Industry Attacks on Waivers

EPA's recently proposed renewable fuel standard (RFS) production goals for 2019 boost volumes for advanced and cellulosic biofuels over the 2018 targets in an apparent victory for the biofuels sector, but some industry groups say the agency's past issuance of waivers from refiners having to meet the goals undermines the proposed targets.

The proposal released June 26 would keep the “implied” volume for conventional corn-based ethanol at the current statutory level of 15 billion gallons (bn gal) used in the 2018 RFS. But it would increase the advanced biofuel volume for 2019 to 4.88 bn gal, of which 381 million gallons (mn gal) is reserved for cellulosic biofuel compared to the 2018 targets of 4.29 bn gal for advanced biofuels and 288 mn gal for cellulosic biofuel.

Emily Skor, CEO of ethanol industry group Growth Energy, says the conventional biofuel target “isn’t a real number we can count on” given EPA’s history of granting waivers to refiners from having to meet the goal. And she also warns that if the waivers continue in 2019 it would undermine the other RFS volumes.

“By neglecting to reallocate gallons lost to waivers, the EPA is doubling down on another year of an estimated 1.5 billion gallons in demand destruction,” she said in a June 26 press release. “The same holds true for advanced and cellulosic biofuels, which are rapidly delivering new economic opportunities for rural communities and driving America’s leadership in clean energy. The targets proposed today promise growth, but those investments can’t move ahead unless the EPA makes it clear that goals set by Congress will be enforced.”

The RFS statute requires fuel refiners and importers to blend increasing volumes of renewable fuels into the fuel supply until 2022, when EPA takes over responsibility for setting volumes. The program is designed to promote fuels that have lower lifecycle greenhouse gases (GHGs) than conventional gasoline.

The agency can invoke its waiver authority to decrease fuel volumes for various fuel types. For the 2019 RFS it has been forced to do so again for cellulosic biofuels, which are not yet produced in the volumes foreseen by Congress when establishing the program.

EPA’s proposal would keep the implied volume for conventional corn-based ethanol at the current statutory level of 15 billion gallons (bn gal), although there is no explicit volume for conventional biofuel. However, it would significantly boost volumes of other fuel types that achieve greater GHG reductions.

EPA in its annual RFS volumes rules also sets a separate volume for biodiesel one year in advance of the other volumes. For 2020, EPA proposes a biodiesel volume of 2.43 bn gal, up from the 2019 number of 2.1 bn gal, which in turn was held at the same level from 2018. The biodiesel industry was angered by EPA’s prior decision to hold the biodiesel volume flat in previous RFS volumes rules, but now welcomes the change in direction.

27. Oil Industry, Ethanol Witnesses Cite Different Grievances With RFS

Witnesses from the American Petroleum Institute and the Renewable Fuels Association appeared equally dissatisfied with the US Environmental Protection Agency’s proposed 2019 biofuel quotas under the Renewable Fuel Standard at a public hearing in Ypsilanti, Mich. They also identified different underlying problems as they separately testified at the hearing on July 18.

API Senior Fuels Policy Advisor Patrick Kelly called on EPA to use its authority to issue waivers until Congress can fix what apparently is a badly broken RFS. “The primary RFS concern is the ethanol blend-wall,” he said. “Serious vehicle and retail infrastructure compatibility issues continue to exist with gasoline containing more than 10% ethanol.”

Three out of four cars on the road were not designed for higher ethanol blends such as E15, and history demonstrates that motorists have largely rejected E85, Kelly said. Gasoline demand increases and commercialization of biofuels that were projected when Congress expanded the RFS in 2007 have not materialized, he said in his testimony.

But RFA Vice-Pres. for Government Affairs Samantha Slater noted that while the proposed 2019 quotas appear to raise the requirement 3% from 2018 levels, “EPA’s failure to stem the tide of small refinery waivers, its refusal to reallocate lost blending volumes, and its brazen repudiation of binding court decisions [make] the proposed rule...superficial and toothless.”

The 15 billion-gal requirement for corn ethanol and other conventional biofuels should, in theory, send a positive signal to the market, she said in her testimony. “The proposed rule, though, comes in the wake of 2.25 billion ethanol-equivalent gal of demand destroyed by illegal waivers to small refineries, and no commitment that EPA is changing its approach to granting these exemptions,” Slater said.

Slater also said EPA missed an opportunity in its quota proposal to address the disparate treatment of E10 and E15 regarding volatility regulation, she said. “Noting that US President Donald Trump has called this Reid Vapor Pressure barrier “unnecessary” and “ridiculous” and directed EPA to fix the problem, Slater asserted, “These gasoline volatility regulations are exactly the kind of job-killing EPA regulations that need reform.”

28. EPA Begins Review Of 2015 Ozone NAAQS But Is Expected to Retain Limit

EPA is formally launching the Clean Air Act-mandated review of the Obama administration's 2015 ozone national ambient air quality standard (NAAQS) of 70 parts per billion (ppb) with two “calls for information” on ozone science, a process that sources say is expected to conclude with the agency deciding to retain the 70-ppb standard.

The agency is slated to publish the two notices in the Federal Register; one seeks any relevant information to assist the independent Clean Air Scientific Advisory Committee (CASAC) in reviewing potential health, welfare, social, economic and other effects from various strategies for attaining and maintaining the NAAQS, while the second launches the NAAQS review itself and seeks scientific and policy-relevant data on ozone pollution.

The call for information could boost critics of strict NAAQS who have argued that the agency should take costs into consideration when reviewing the standards -- even though Supreme Court precedent says EPA can only set the risk-based standards based on a review of ozone's impacts on public health and the environment.

The notice asks for submissions on various impacts of NAAQS, including mandates for stationary and mobile sources; the effects on Clean Air Act new source review and prevention of significant deterioration permitting requirements; and potential economic and other effects of areas being placed out of attainment with the standard, including impacts on overall economic growth and employment, public health and welfare, and energy production.

“[T]hese topics may include information which is not relevant to the standard-setting process, but they provide important policy context for the public, co-regulators, and the EPA,” says the notice.

The Clean Air Act requires EPA to review its six NAAQS for criteria pollutants including -- ozone and particulate matter -- every five years to determine if they are protective with an adequate

margin of safety. The Obama administration in October 2015 strengthened the limit down from the prior 2008 standard of 75 ppb.

Reports are that the likely outcome of all of this in 2020 is to reaffirm the existing standard at 70. EPA could also cite new modeling that shows nearly every area of the country will attain the 2015 standard by 2023 to justify retaining the standard, arguing that most of the country is already on the track to compliance.

Still, environmentalists who even under the Obama administration argued for a standard stricter than 70 ppb are likely to use the calls for information to argue that scientific data justify a more-stringent NAAQS.

The call for information on ozone data asks for submissions on “significant new” ozone research and policy-relevant issues for consideration in the review of the NAAQS. The data will inform EPA’s development of an integrated review plan that will summarize the agency’s plan for the NAAQS review, followed by an integrated science assessment that sums up newly available ozone data since the last review, and finally a policy assessment outlining options for the NAAQS review. The latter document is where EPA staff would float any potential suggested changes to the standard.

29. Justice Kennedy Retirement Increases Odds of High Court Backing EPA Rollbacks

Justice Anthony Kennedy's decision to retire from the Supreme Court gives President Donald Trump the chance to nominate a replacement who could secure a strong 5-4 conservative majority of justices, increasing the odds that the court will uphold Trump's roll-back of Obama EPA regulations and new policies that weaken agency rules.

If Trump succeeds in replacing Kennedy with a replacement who gives the court a more reliable 5-4 conservative majority, it could also give the justices an opening to undo or pare back prior environmental rulings including its landmark opinion that EPA has authority under the Clean Air Act to regulate greenhouse gases, and potentially to craft new rulings that either limit groups' legal standing to sue federal agencies or otherwise restrict environmental cases.

In perhaps the most prominent example of his swing status, Kennedy provided the crucial fifth vote for the majority in 2008's *Massachusetts v. EPA*, where the court by a 5-4 margin held that greenhouse gases are “pollutants” subject to regulation under the Clean Air Act.

Writing at Legal Planet, University of California at Los Angeles law professor Ann Carlson says, “A more conservative court could overturn [*Massachusetts*] v. EPA or, perhaps more likely, significantly curtail its reach.” She continues that more recent climate cases, most prominently *Utility Air Regulatory Group (UARG) v. EPA* in 2014 -- where the court by another 5-4 vote limited a Clean Air Act GHG permitting program -- have already taken steps down that path.

“With a new Justice on the Court who opposes [*Massachusetts*] v EPA, it isn’t hard to imagine the Court imposing significant limitations on EPA’s ability to regulate greenhouse gases. If a Democrat were elected President in 2020 and attempted to reinstate something like the Clean Power Plan, for example, we could well see the Supreme Court strike such a rule down.”

Later, outlining a scenario where the 2006 decision is overturned, she writes that if a hardline conservative is confirmed to replace Kennedy, opponents of GHG rules would only have to win

the vote of Chief Justice John Roberts, who dissented from [Massachusetts] v. EPA but has yet to join calls for its explicit repeal.

“Even more alarming, it’s worth noting that in the UARG case, two current Justices, [Samuel] Alito and [Clarence] Thomas, would have overturned [Massachusetts] v EPA. Add Justice Gorsuch and the new Justice, persuade Justice Roberts to join in, and [Massachusetts] v EPA is overturned,” Carlson writes.

30. Trump Picks EPA Critic Kavanaugh For High Court

President Donald Trump has named U.S. Court of Appeals for the District of Columbia Circuit Judge Brett Kavanaugh as his nominee to replace retiring Supreme Court Justice Anthony Kennedy, adding a long-time EPA critic to the high court.

If the Senate confirms Kavanaugh, observers expect he would add a reliable conservative vote to the closely divided court, boosting the odds that Trump EPA rollbacks will survive judicial review and potentially leading to new limits on agency deference along with bids from industry and conservatives for the court to reconsider a host of other precedents.

Kavanaugh could play a key role in future suits regarding EPA greenhouse gas rules under the Clean Air Act and the scope of its authority under the Clean Water Act – issues in which Kennedy provided decisive votes to shape the agency's power.

Kavanaugh has a lengthy record on environmental cases compared to prior high court nominees, since the D.C. Circuit has original jurisdiction over many EPA rules and other actions. Most recently, he authored the panel opinion in *Mexichem Fluor v. EPA, et al.*, where a divided three-judge panel vacated a key portion of EPA's rule limiting refrigerants that act as potent greenhouse gases. However, *Mexichem* is now the subject of a pending Supreme Court petition. Even if Kavanaugh is quickly confirmed, the justices' practice is to recuse themselves from cases they dealt with in prior posts, opening the door to a potential 4-4 split on the suit that would leave Kavanaugh's decision in place but set no nationwide precedent.

He also sat on the D.C. Circuit panel that heard argument this spring on environmentalists' challenge to EPA's delay of Obama-era updates to its risk management plan facility safety rule. While the panel has yet to hand down a ruling, Kavanaugh seemed to back the Trump administration's authority to postpone enforcement of the new policy during reconsideration.

During the Obama administration, Kavanaugh often voted to scrap major EPA rules, including the 2014 decision *White Stallion Energy Center LLC et al. v. EPA et al.*, where he was the lone dissenter in a 2-1 decision that upheld EPA's utility maximum achievable control technology (MACT) air toxics rule against industry and state claims that the agency should have considered costs in its finding that regulation was “appropriate and necessary.” However, the Supreme Court ultimately adopted the logic of his dissent when it took up the case as *Michigan v. EPA* and held that a cost review should have been part of the “appropriate and necessary” finding.

Kavanaugh was also on the panel that reviewed the Obama EPA's Cross-State Air Pollution Rule (CSAPR). In 2014, he authored a ruling that held the program unlawful, but was reversed by the high court. After the justices remanded the case, he largely upheld CSAPR against further challenges.

Showing support for broad consideration of costs in EPA's work, in 2016 Kavanaugh was the dissenting vote in *Mingo Logan Coal Company v. EPA*, where he said EPA should have weighed the costs involved in its “veto” of a Clean Water Act dredge-and-fill permit for the coal company, which was based on a finding that there would be “unacceptable” environmental consequences for allowing waste disposal to go ahead as planned. That could be a signal that Kavanaugh would back EPA's current push to establish more “consistency” in its analysis of regulations' costs and benefits.

However, Kavanaugh was not an automatic vote against the Obama EPA. In 2017, he wrote for a unanimous three-judge panel that rejected a wastewater group's bid to force EPA to loosen its use of CWA permits to limit “blending” at treatment plants. And in 2015, Kavanaugh wrote for a unanimous three-judge panel in *Energy Future Coalition, et al. v. EPA*, to uphold the agency's fuels compliance testing policy against an industry challenge.

31. North American Agencies Approve Technical Solutions for Audi Diesel Automobiles

Almost three years on from the start of the diesel crisis, Audi can offer a specific solution for all its diesel engines in the United States and Canada. The responsible approval authorities have now cleared the proposed package of measures for the last of five engine generations.

On the basis of this decision, Audi can now embark on implementing its plan of action for the last around 8,800 diesel automobiles in North America. For the first four engine generations of the 3.0 TDI, the Company had already been able to propose firm solutions to its customers in the United States for their vehicles in stages since November 2017, all of which were approved by the authorities. To date, around 62 percent of the U.S. customers affected have taken up the offer. In Canada, the measures were rolled out one and a half months later. At the moment the completion rate there is around 42 percent.

In the model years 2009 to 2016, the Company offered Audi A8, Audi A7 and Audi A6 as well as Audi Q7 and Audi Q5 models with V6 TDI engines intermittently in North America.

32. New ECOS Chief Backs California GHG Authority in Broad 'Federalism' Push

The new leader of the Environmental Council of the States (ECOS), the group that represents state environmental commissioners, is strongly backing California's authority to regulate vehicle greenhouse gas (GHG) emissions in the face of the Trump administration's plans to weaken federal -- and equivalent state -- standards.

In a recent interview with *Inside EPA*, Sam Sankar, ECOS' new executive director and general counsel, cited the controversy of an example of the cooperative federalism that state regulators are seeking to bolster -- even as he hailed EPA Administrator Scott Pruitt's push to bolster state discretion in implementing federal environmental law.

But he also said any push to bolster state discretion should defer to states' authority to impose stricter pollution controls within its own borders.

“That's one where ECOS members would say, look, the state program is going further, and that is an authority specifically granted to California under the Clean Air Act and one that as a policy matter the administration may or may not agree with but that federalism requires that it respect.”

His comments suggest there may be broader state opposition to Trump administration plans to roll back the aligned state and federal vehicle rules than initially indicated.

At the request of the auto industry, the administration has determined that the Obama administration's vehicle GHG rules governing model years 2017 - 2025, which are aligned with California's rule, must be weakened. And a leaked draft proposal from EPA and the Transportation Department (DOT) floats an aggressive rollback, including a preferred scenario that would freeze requirements at model year 20 levels until MY26.

The draft plan also seeks to undercut California's GHG program by arguing it conflicts with federal fuel economy rules, but there are questions about how precisely the Trump administration might target the state's Clean Air Act waiver allowing it -- and other states -- to enforce California vehicle rules.

That is consistent with remarks from EPA Administrator Scott Pruitt, who has charged that California's waiver allows the state to "dictate" stricter standards for the rest of the country.

In response, California and 16 other states are suing EPA over its April determination that the rules should be rolled back, launching an opening legal bid to block Trump officials from rolling back the federal standards.

California officials are also proposing an amendment to its rules that automakers would only be "deemed to comply" with state standards if their vehicles meet current national limits, not any weaker federal standard.

The move underscores the state's threat that any EPA action to substantially weaken the standards would end the current "one national program," which aligns EPA and California's GHG rules, as well as DOT's fuel economy limits. Such a move would create two separate vehicle programs that could create regulatory confusion and increase compliance costs for automakers.

As such, many in the auto industry hope that the Trump administration will ultimately reach a deal with California on a package of changes to the rules that eases compliance but that the state is still willing to accept.

While backing California's discretion to set tailpipe GHG emission standards that are stricter than EPA rules, ECOS' Sankar says the group has not taken a position on the litigation brought by California and 16 other states.

He also said he understands Pruitt's concern that "California's independent authority creates a situation where there are multiple regulatory regimes in the country." But he referenced ECOS' 2013 resolution backing state adoption of California standards, noting it urged Congress not to limit states' authority to enforce standards stricter than EPA's, California's authority to enforce its own vehicle standards and for other states to adopt California's standards.

Sankar says that approach would also extend to the Trump administration.

He also says that the group's approach to cooperative federalism allows for EPA enforcement to ensure states meet a minimum federal baseline of environmental protection. "States can go above and beyond but the federal floor needs to be maintained," he said. "If and when a state is not meeting those expectations then, of course, there is a role for EPA to step in."

Nevertheless, he said that on balance “the administration's generally positive attitude toward state authority to regulate environmental issues is one that ECOS favors.”

Sankar took the helm at ECOS in February, as the coalition of state environment commissioners had already begun ongoing talks with EPA on improving state and federal cooperation on environmental protection. He replaces former ECOS director Alexandra Dapolito Dunn, who the Trump administration named EPA Region 1 administrator in January.

In the wide-ranging interview, Sankar, addressed a host of state priorities, ranging from some states' calls for an enforceable federal standard for polyfluoroalkyl substances to the ongoing negotiations with EPA on streamlining federal reviews of state permitting and enforcement actions, a policy both Pruitt and ECOS support.

ECOS generally seeks to craft recommendations for EPA or other federal agencies that reflect often-disparate views of the dozens of state environment commissions it represents. But Sankar says ECOS' primary role is ensuring states have a voice in the federal environmental laws states implement through delegated programs.

“Many of our members have differing views on the overall big picture of federal regulatory decisions,” Sankar said citing the Obama-era Clean Power Plan as a prime example. “Where ECOS and our members are unified, however, is in making sure there's appropriate balance between federal oversight of state regulatory efforts [to implement] federal law on one hand, and on the states' ability to exercise that authority independently.”

Sankar's remarks come as ECOS over the past year has embraced Pruitt's aims of bolstering state autonomy in implementing federal environmental law, while cautioning against Trump administration proposals to slash EPA's budget, which provides between one quarter and one third of funding for state environmental programs through grants.

The ECOS framework for redefining state and federal roles for overseeing pollution control requirements, “Cooperative Federalism 2.0: A Deeper Look into a Rebooted EPA-State Relationship,” also strongly backs EPA's role in providing sound scientific information to support state rules.

But Trump administration budget cuts have targeted EPA's scientific capacity with a proposal that has since been shelved, to zero-out the agency's Integrated Risk Information System chemical assessment program and has recently proposed a rule to limit EPA's use of scientific information in rulemakings to publicly-available data.

Sankar argued that every state supports adequate funding for EPA science. “States rely on a robust federal scientific program.”

While ECOS plans to craft comments on EPA's April 30 proposed rule limiting the agency to using only publicly available data in rulemaking, Sankar declined to elaborate on the group's possible input, saying that ECOS is still working on developing recommendations upon which all member states agree.

33. EVs Could Drive 38% Rise in US Electricity Demand, DOE Lab Finds

Rising electricity demand could lead to sustained absolute growth of 80 terawatt-hours per year, according to the U.S. Department of Energy's National Renewable Energy Laboratory. Utilities

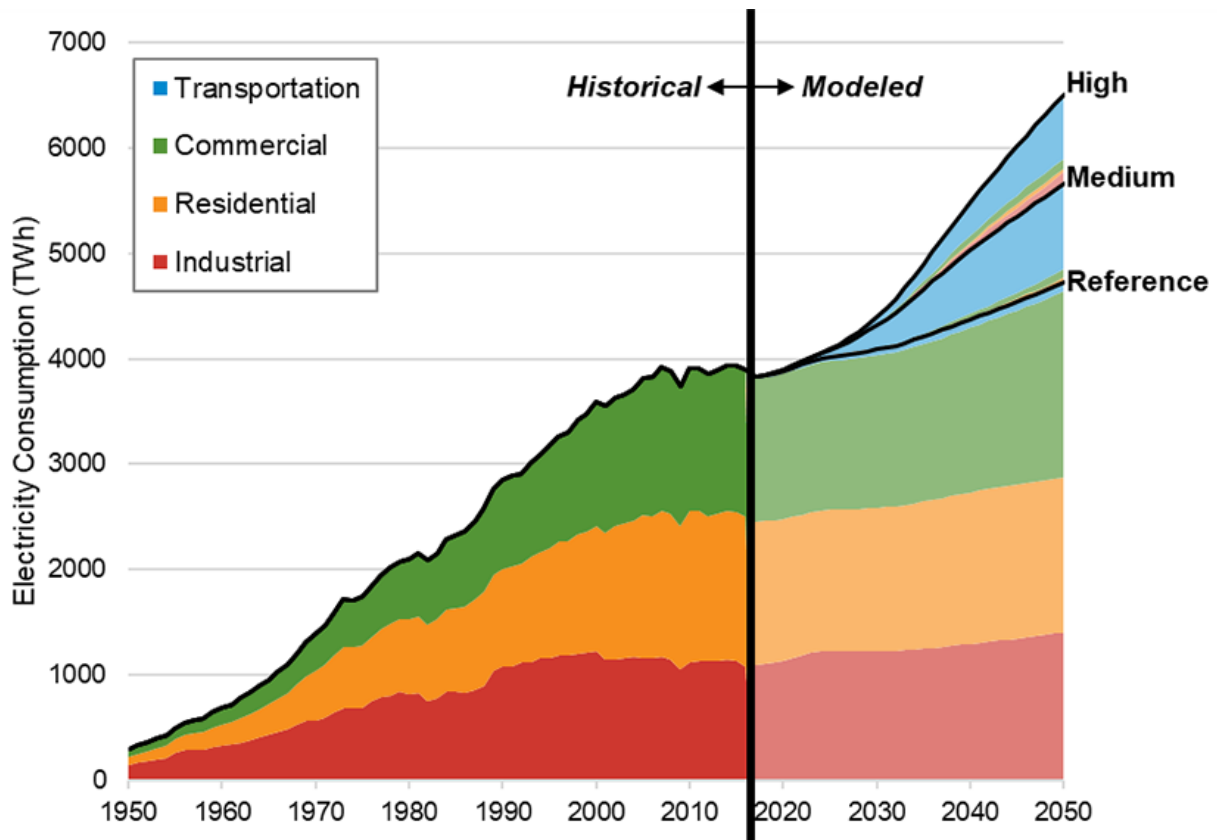
have struggled with flat demand for years, but analysis by the National Renewable Energy Laboratory predicts steady growth across the next three decades — largely driven by the adoption of electric vehicles.

The study considers three scenarios, a reference case and medium- and high-adoption electrification predictions. All indicate demand growth, but in the medium and high scenarios for 2050, U.S. electricity consumption increases by 20% and 38%, respectively, compared to business as usual.

Utilities could go from stagnant demand to compound annual growth rates of 1.6%, which would amount to sustained absolute growth of 80 terawatt-hours per year. "This unprecedented absolute growth in annual electricity consumption can significantly alter supply-side infrastructure development requirements," the report says.

Study results should hearten utilities, particularly as the electric vehicle industry has gotten off to a relatively slow start in the United States. But EVs are widely expected to catch on, and there could be 7 million of them on the roads by 2025 — up from 567,000 at the end of 2016, according to estimates from the Edison Electric Institute and the Institute for Electric Innovation.

NREL's Trieu Mai, principal investigator for the study, cautions that more research is needed to fully assess the drivers and impacts of electrification, "as well as the role and value of demand-side flexibility."



Source: National Renewable Energy Laboratory

"Although we extensively and qualitatively discuss the potential drivers and barriers behind electric technology adoption in the report, much more work is needed to quantitatively understand these factors," Mai said in a statement.

However, utilities have largely bought into the dream.

"Electric vehicles are the biggest opportunity we see right now," Energy Impact Partners CEO Hans Kobler told Utility Dive. And the impact could go beyond just higher kilowatt-hour sales.

"When the transportation sector is fully electrified, it will result in around \$6 trillion in investment," Kobler said. "Half of that is on the infrastructure side of the utility." And the industry can also benefit through rate basing charging stations and managing the new demand.

One benefit that NREL's report points to is the possibility of "expanded value streams enabled by electric and/or grid-connected technologies."

"Many electric utilities are carefully watching the trend toward electrification, as it has the potential to increase sales and revenues that have stagnated or fallen over the past decade," the report said. "Beyond power system planning, other motivations to study electrification include its potential to impact energy security, emissions, and innovation in electrical end-use technologies and overall efficient system integration. The impacts of electrification could be far-reaching and have benefits and costs to various stakeholders."

Shifts in peak demand "could have significant impacts on electric utility planning, grid operations, reliability assessments, and electricity markets," NREL concluded. States in the Northeast or Midwest will see the greatest changes in peak demand.

The impacts of load growth on peak demand are a vital issue for utilities. While demand management can help flatten some of the demand spikes, utilities will need to upgrade their distribution systems. Earlier this year, the California Energy Commission released an analysis of what infrastructure was necessary to reach the state's EV goals and concluded EV chargers could add 1 GW of peak demand to the grid.

While electrification is broader than the transportation sector, NREL said electric vehicles will undergo the "greatest technology transition" while the buildings and industrial sectors "generally see less potential for transformational change nationwide."

In 2016, electricity's share of final energy consumption in the United States was 19%. Driven largely by the transportation sector, NREL believes electricity's share of total final energy consumption will grow to 32% in the medium and 41% in the high scenario by 2050.

34. Tesla's Battery Maker Suspends Cobalt Supplier Amid Sanctions Concern

Panasonic said it was unable to determine how much of the cobalt used in batteries it makes for Tesla cars comes from Cuba, a country subject to U.S. sanctions, and that it had suspended relations with a Canadian supplier as a result of its concerns. The Japanese electronics giant, the exclusive supplier of batteries to Tesla, made the comments following questions from reporters about whether the batteries contained Cuban cobalt. Two sources familiar with the matter told the press that some of the cobalt that Panasonic uses to make Tesla's batteries is mined in Cuba by Canadian supplier Sherritt International.

Panasonic said it was unable to tell how much cobalt sourced from Cuba via its Canadian supplier ended up in the batteries it provided to the U.S. market “due to co-mingling of sources by its suppliers in several phases of manufacturing processes”.

“Panasonic has chosen to suspend its relationship with its Canadian supplier,” a spokeswoman said, without naming the supplier. She added that Panasonic had used cobalt from the Canadian supplier for batteries used in the Tesla Model S and Model X, but only after February this year.

“Panasonic has sought guidance from the U.S. Treasury Department’s Office of Foreign Assets Controls (OFAC) regarding its interpretation of the scope of the U.S. ban on Cuban-origin imports,” she said.

The United States imposed sanctions on Cuba after Fidel Castro nationalized swathes of American assets more than 50 years ago.

A spokesman said: “Tesla is aiming to achieve close to zero usage of cobalt in the near future.” The electric vehicle maker, run by billionaire Elon Musk, said in May that it had been working for years to reduce the amount of cobalt it uses in its batteries.

35. Energy Trade Associations Blast Ongoing Coal, Nuclear Bailout Plans

Officials from the American Petroleum Institute, Natural Gas Supply Association, and eight other national energy business groups strongly criticized ongoing Trump administration plans to keep otherwise failing coal-fired and nuclear power plants open ostensibly to assure electricity service will remain reliable nationwide. They responded on June 1 after White House Press Secretary Sarah Huckabee Sanders said President Donald Trump has directed US Energy Sec. Rick Perry to take immediate steps to assure such power plants, which a discussion document that was leaked on May 29 called “fuel-secure,” continue operating.

Natural gas pipelines, by contrast, represent “a major point of vulnerability due to the limits of protection available to thousands of miles of pipeline networks,” the document alleged. “Unfortunately, impending retirements of fuel-secure power facilities are leading to a rapid depletion of a critical part of our nation’s energy mix, and impacting the resilience of our power grid,” Sanders said.

Gas’s total US power generation volumes in 2017 fell 7.5% to 8,871 bcf from 2016’s 9,590 bcf after generally growing steadily since 1990’s 3,147 bcf, US Energy Information Administration figures show. Coal’s contribution, meanwhile, has fallen continuously after peaking at more than 1,041 million short tons in 2007.

“Propping up aging and uneconomic power plants through the Defense Production Act, the Federal Power Act, or other unnecessary federal intervention is a short-sighted action that drives up customer costs and undermines well-functioning power markets,” said NGSAs Pres. Dena E. Wiggins.

Wiggins said, “It is an inappropriate use of the federal government’s emergency powers that is even more egregious when even the regional power grid authorities at PJM Interconnection say there is no emergency.”

The regional transmission organization based in Valley Forge, Pa., said on June 1 that it has received no official documents from the US Department of Energy, and that its analysis of plans

to deactivate certain nuclear plants serving 13 states and the District of Columbia “has determined there is no threat to system reliability.”

Wiggins said, “We need to move away from a narrow focus on resuscitating individual projects and refocus the discussion on what lies at the heart of resiliency—the ability to reliably serve power customers in the most cost-efficient manner over both the short and the long-term.”

API Market Development Group Director Todd Snitchler said, “The administration’s draft plan to provide government assistance to those coal and nuclear power plants that are struggling to be profitable under the guise of national security would be unprecedented and misguided.”

The US is on track to achieve the president’s energy dominance vision in no small part because gas has become the number one source of electricity, Snitchler said. “However, unprecedented government intervention in the energy markets to support high-cost generation will put achieving that vision in jeopardy and hurt customers by taking more money out of their pockets,” he said.

Officials from the Advanced Energy Economy, American Council on Renewable Energy, American Wind Energy Association, Business Council for Sustainable Energy, Electricity Consumers Resources Council, Electric Power Supply Association, Energy Storage Association, and Solar Energy Industries Association also spoke out strongly against the idea.

ASIA-PACIFIC

36. China VI Heavy Duty Emissions Standards Released

The Ministry of Ecology and Environment (MEE) has released the final China VI heavy duty vehicle emissions standards and measurement methods. The China VI standard is among the world’s most stringent and combines best practices from both European and U.S. regulations. It applies to vehicles fueled by diesel, liquefied petroleum gas (LPG) and natural gas. The standard will be implemented in two phases. China VI-a, which is largely equivalent to Euro VI emission standard, will take effect starting from July 1, 2020 for new urban HDVs (e.g., public buses, sanitation and postal trucks), and July 1, 2021 for all new HDVs nationwide. China VI-b, which introduces slightly more stringent testing requirements and in-use compliance management program, will take effect beginning on July 1, 2023 for all new HDVs. The standard:

- Reduces NO_x and PM emission limits by around 70% from the current China V standard;
- Introduces particulate number (PN) limits;
- Changes the test cycles from the European Steady-state Cycle (ESC) and European Transient Cycle (ETC) to the more representative and dynamic World Harmonized Stationary Cycle (WHSC) and World Harmonized Transient Cycle (WHTC);
- Introduces the World Harmonized Not-to-exceed (WNTE) test;
- Extends the durability requirements;
- Introduces a full vehicle Portable Emission Measurement System (PEMS) test for new vehicle verification testing as well as in-use compliance testing, and adopts European PEMS requirements but with modifications to address the unique driving conditions in China;
- Requires the installation of an improved on-board diagnostic (OBD) system and adopts US anti-tampering and anti-fraud provisions;

- Requires the installation of a remote emission management on-board terminal (remote OBD, China VI-b only);
- Introduces a multi-component compliance program involving agency- and manufacturer-run emission tests during pre-production, production and in-use stages;
- Introduces a HDV emission warranty program.

37. China's Clean Air Action Plan Approved

The State Council has approved a new three-year clean air action plan. The plan sets new targets for 2020, including achieving over 80% “good air” days and reducing the concentration of PM 2.5 by 18% from 2015 levels in cities. The three-year plan will also prohibit new steel, coking and electrolytic aluminum production capacity in key areas and increase the proportion of freight railway transportation while discouraging the use of vehicles that have been in use for more than 20 years. In a statement, Premier Li Keqiang emphasized prioritizing electric heating over gas as part of the ongoing clean heating campaign in northern China.

The Ministry of Ecology and Environment also announced it will strengthen air quality inspection in key areas from 2018-2019. In efforts to fight “The Blue-Sky Battle”, the Ministry plans to mobilize 18,000 inspectors to target key areas with high air pollution. Expanding the scope of the supervision from the Beijing-Tianjin-Hebei region, the Ministry will also cover the Fenwei Plain and Yangtze River Delta Region. The enhanced supervision began on June 11 and will extend to April 28, 2019.

China's new plan for tackling air pollution (published on July 3) is more detailed and covers more cities than the one which expired at the end of 2017 – but it does not set tougher targets than those already in place.

The earlier Air Pollution Action Plan, released in September 2013, may have been China's most influential environmental policy of the past five years. It helped China to make significant improvements to air quality by setting PM2.5 targets for key regions, requiring significant reductions between 2013 and 2017 – of 15% in the Pearl River Delta, and of 33% in Beijing.

In Beijing this meant reducing PM2.5 levels from 89.5µg/m³ (micrograms per cubic meter) down to 60. To do so, Beijing closed its coal-fired power stations, and banned people in surrounding areas from burning coal for heat. These measures were costly and controversial, but they enabled the city to achieve an annual average PM2.5 level of 58µg/m³ – a drop of 35%.

Other cities and provinces also had to act. In the end, China's three biggest city clusters (Beijing-Tianjin-Hebei, and the Pearl and Yangtze deltas) all beat their targets.

But even so, no Chinese city yet reaches the World Health Organization's recommended annual average PM2.5 level of 10µg/m³. And as of the end of 2017, only 107 of China's 338 cities of prefectural level or higher had reached the WHO's interim standard of 35µg/m³.

The successes of the previous five years and the remaining distance to be travelled left both the public and environmentalists keen to see how China would continue its campaign for “bluer skies”.

The new 2018-2020 Three-year Action Plan for Winning the Blue-Sky War (the Three-year Action Plan below) is regarded by many as the second phase of the original air pollution action plan.

The new plan matches the PM2.5 target published in 2016 as part of the 13th Five-Year Plan for environmental protection: mandating falls of at least 18% in PM2.5 levels on a 2015 baseline in cities of prefectural or higher level, and where standards have not already been met.

It's worth noting the phrase, "where standards have not already been met", as well as the 2015 baseline and target of an 18% fall.

Official data shows that of the 338 cities that are prefectural or higher level, 231 have not yet reached the Chinese government standard on PM2.5 levels, which allows an average of 35µg/m³ (equivalent to the WHO's interim standard). The Three-year Action Plan will apply to all these cities. In comparison, the 2013 Action Plan only set PM2.5 targets for the city clusters of Beijing-Tianjin-Hebei and the Pearl and Yangtze Deltas.

It may seem odd that data from the end of the first plan in 2017 is not used as a baseline (instead of the 2015 baseline). However, Wang Jinnan, head of the Ministry of Ecology and Environment's Chinese Academy of Environmental Planning and a member of the Chinese Academy of Engineering, said that setting another target outside of the 13th Five-Year Plan framework (which runs 2016 to 2020) would create confusion for local governments. Therefore, no new quantitative targets have been set. Instead, the plan reiterates the need to meet the goals of the 13th Five-Year Plan.

The new action plan focuses more on ozone, which is created when volatile organic compounds (VOCs) react with nitrogen oxides. It adds targets for both VOCs and nitrogen oxides; emissions reductions of 10% and 15%, respectively, by 2020 (again on a 2015 baseline).

Experts say ozone pollution in China is not particularly severe when compared to other countries. Hao Jiming, a professor at Tsinghua University's School of the Environment and a member of the Chinese Academy of Engineering, told reporters that ozone levels have risen somewhat, but remain within an acceptable range.

But there are signs that ozone pollution in China is worsening. Higher temperatures mean more ozone is created. In the hot and humid Pearl River Delta, ozone is now the primary pollutant, rather than PM2.5. Many other regions also suffer from ozone pollution during the summer months. Greenpeace has calculated that average ozone levels nationwide in June were 11% higher than the previous year.

By setting clear targets, China's new plan represents a further improvement in the country's air management policies. A notable change in the new plan is a shift in the battle for "blue skies" – the Pearl River Delta is no longer described as a key region. Instead, it's been replaced by the Fen-Wei Plains, which include Xi'an and parts of Shaanxi, Henan and Shanxi provinces.

The Fen-Wei Plains suffer from the country's highest levels of sulfur dioxide pollution, while PM2.5 levels are also among the highest nationwide.

Li Ganjie, head of the Ministry of Ecology and Environment, has said that while other key regions have experienced sustained improvements in air quality, the Fen-Wei Plains have worsened and much more effort is needed. In the region's major city, Xi'an, PM2.5 levels increased 27% between 2015 and 2017, a worrying trend.

Like Hebei, which forms part of the Beijing-Tianjin-Hebei region, this region relies on coal for energy and is home to polluting heavy industries. The Three-year Action Plan requires coal

consumption to fall here by 2020, bans the small-scale burning of coal for heat in winter, and will see a full shake-up of polluting industries by 2019.

After the reforms of 2018, the National Development and Reform Commission's climate change and carbon emission responsibilities shifted to the Ministry of Ecology and Environment. The Three-year Action Plan, meanwhile, indicates that China's management of air pollution and climate change are coming together. The plan calls explicitly for "large reductions in total emissions of major pollutants in coordination with reduction in emissions of greenhouse gases."

The Three-year Action Plan continues to strengthen end-of-pipe treatment, but also takes more detailed measures on the sources of pollution and structural issues, including transitions in energy, industrial and transportation. For example, there are 11 indices and measures for the Fen-Wei Plains, including total coal consumption, the proportion of freight carried by train, and clean heating.

Those measures arose from targeted research. The Ministry of Ecology and Environment's research bodies evaluated the climate co-benefits from various approaches to tackling urban air pollution. The measures with the greatest co-benefits were then proposed. For example, better district heating in northern industrial cities, cleaner heating furnaces, and tackling small-scale coal burning.

The new plan is backed up by more research and experience than its predecessor. He Kebin, a member of the Chinese Academy of Engineering and dean of Tsinghua University's School of the Environment, said that evaluations carried out after the first action plan expired had identified the sources of smog and its constituents down to the sector-level – energy, industry, transportation, and so on – with the aim of enabling more scientific and targeted methods.

After an exhausting five-year sprint, China is settling in for a long and steady jog.

38. Top Legislature Convenes Extraordinary Session on Air Pollution Control

China's top legislature convened an extraordinary session on air pollution control from July 9 to 10. "Legislators are expected to review a report on the implementation of the Air Pollution Control Law, and a draft decision on strengthening the comprehensive protection of the environment and supporting the fight against pollution in accordance with the law," said a statement issued after a chairpersons' meeting on July 2.

The Standing Committee of the National People's Congress (NPC) sent four teams to the country's eight provincial-level regions to check the implementation of the Air Pollution Control Law from May to June. They also entrusted local legislatures in the other 23 provincial-level areas with law enforcement inspection.

"The inspection was carried out by the 13th NPC Standing Committee in its first year of performing duties, with the aim of promoting the implementation of the major decisions and plans of the Communist Party of China Central Committee on environmental protection and pollution control, ensuring the comprehensive, effective law enforcement, solving prominent environmental problems of public concern, and strengthening legal protection for making the skies blue again," said the NPC Standing Committee.

The report on the implementation of the Air Pollution Control Law (see below), which was originally scheduled for the session in August, will be deliberated in the extraordinary session in advance.

The NPC Standing Committee session is held every two months but can be convened temporarily for special purposes. Two extraordinary sessions were held by the 12th NPC Standing Committee, to handle electoral fraud in Liaoning Province in September 2016 and to review a draft revision to the Constitution in January 2018.

China has identified preventing and controlling pollution as one of three "tough battles" in the process of building the moderately prosperous society, along with forestalling and defusing major risks, and carrying out targeted poverty alleviation.

39. China's Air Quality Improves: Top Legislature Inspection Report

The Air Pollution Control Law and the action plan on air pollution control have been well implemented across the country since the 18th Communist Party of China National Congress in 2012, said the report submitted for review at a session of the National People's Congress (NPC) Standing Committee.

The implementation of the law and air pollution control has seen positive achievements, said the report.

The NPC Standing Committee sent four teams to the country's eight provincial-level regions, including Henan, Inner Mongolia and Shanxi, to check the implementation of the Air Pollution Control Law from May to June. They also entrusted local legislatures in 23 other provincial-level areas with law enforcement inspection.

The average density of PM10 in 338 Chinese cities at prefecture level and above in 2017 decreased by 22.7 percent compared to 2013 levels, while the average density of PM2.5 in major areas including the Beijing-Tianjin-Hebei region, the Yangtze River Delta and the Pearl River Delta, fell 39.6 percent, 34.3 percent and 27.7 percent respectively, said the report.

China cut steel production capacity by 170 million tons, coal by 800 million tons, and cement by 230 million tons over the past five years, the report noted.

The proportion of coal consumption dropped 8.1 percentage points while the proportion of clean energy in total energy consumption increased by 6.3 percentage points over the past five years, it said.

According to the report, the main reasons for air pollution in some regions are irrational industrial structure and layout, and unreasonable energy structure and transportation structure.

Traditional industry accounts for 70 percent of the entire industry and the heavy chemical industry makes up 70 percent of the traditional industry in Shandong, it said.

The report said about 78 percent of the country's freight volume were carried by diesel-powered vehicles, which discharged over 60 percent of the country's total vehicle emissions. Shandong is home to over 1.72 million diesel-powered vehicles, accounting for 10.2 percent of the national total and ranking first in China, followed by Hebei Province.

Linfen City in Shanxi Province was found to have fabricated environmental monitoring data from April 2017 to April 2018, it said, adding that major enterprises did not publicize their pollutant discharging information timely, accurately and completely.

The report also raised a number of suggestions to fix the problems, calling for efforts to formulate supporting policies and strengthen supervision on law enforcement.

A regulation on issuance of pollutant discharging licenses should be in place by the end of 2019 to manage stationary pollution sources and coordinate efforts to control multiple pollutants, it suggested.

Environmental protection authorities are asked to put into force a list on toxic and harmful air pollutants by the end of this year, it said.

Local legislatures are encouraged to formulate laws on air pollution control ahead of national legislation and provincial-level people's congresses and their standing committees should make or revise their regulations according to reality, it said.

40. Oversight Will Bolster Enforcement of Laws

China's top legislature called for strengthened air pollution control measures in key sectors as it concluded inspections on the implementation of the Air Pollution Control Law and found the law is not adequately applied in some areas.

The legislature's inspections in eight provincial regions, including Henan, Shandong and Jiangsu provinces, found many local governments failed to implement measures as required by the law to control air pollutants from bulk coal consumption, straw burning, construction sites, mines and motor vehicles, top legislator Li Zhanshu told a session of the Standing Committee of the National People's Congress.

Bulk coal is a major contributor to smog in northern China during the winter. Li said more than 200 million metric tons of bulk coal is consumed in the region as a heating source each winter. Calculations by authorities show that air pollutants from a ton of bulk coal used for heating equals that of 10 to 15 tons of coal used in power generation.

The Air Pollution Control Law stipulates that governments of all levels should take measures to strengthen bulk coal management. Some local governments in Shanxi and Shaanxi provinces, however, were found to have made slow progress in replacing the polluting energy with clean ones, Li said.

More than 20 million tons of bulk coal is consumed every year in the Guanzhong region of Shaanxi, home to five cities including the province's capital Xi'an. Bulk coal is still widely used in old communities in urban areas, shantytowns and rural areas in the region. Local governments fail to carry out control measures "effectively", the legislator said.

Another major problem legislators found is that some local governments haven't made sufficient efforts in supervising fuel quality and controlling pollution from motor vehicles. Motor vehicles have taken a larger share as a source of pollution as many areas have shifted to cleaner fuels for energy and heating.

There are special clauses on pollution control with motor vehicles and fuel quality supervision, but it's common to see diesel trucks with substandard pollution control measures or even no such measures at all, Li told the session. Some of the local authorities have inadequate capability in

vehicle supervision and some fail to fulfill their duties in the supervision work. Vehicle testing institutes in some areas falsify testing results, noted Li.

There also are gaps in the supervision of fuel manufacturing and circulation in some regions. While there are unlicensed enterprises manufacturing fuel illegally, no government departments in these regions are in charge of supervising the diesel in the market, Li said.

Some enterprises are also blamed for failure in implementing pollution control measures as required by the law.

The law stipulates that enterprises in steel, construction materials, petroleum and chemical industries should resort to clean technologies in production and equip pollution control facilities.

41. Vehicle Sales in China Continue to Climb

Sales of new light vehicles in China increased 2.3 percent to roughly 1,874,200 in June, reflecting robust sedan demand.

Sedan deliveries advanced 9.1 percent from a year earlier to around 963,400, the China Association of Automobile Manufacturers said.

Minibus sales edged up 0.5 percent to approximately 43,900.

By contrast, demand for crossovers and SUVs slid 0.5 percent to about 737,600. It was the first time the segment posted a monthly sales decline in several years.

Multi-purpose vehicle deliveries remained weak, slumping 21 percent to 129,300 in June.

In the first half of the year, China's new light-vehicle sales rose 4.6 percent to nearly 11.8 million behind strong deliveries in April and May.

In June, sales of commercial vehicles including buses and trucks jumped 18 percent from a year earlier to roughly 399,000, reflecting robust demand from shippers and domestic logistics providers. Through June, commercial vehicle deliveries increased 4.8 percent to nearly 2.3 million.

As a result, total automobile deliveries in China rose 4.8 percent to around 2,273,000 last month. Year-to-date auto sales approached 14.1 million, increasing 5.6 percent from the same period last year.

42. EV, Plug-In Hybrid Sales Continue Surge in June

Electrified vehicle sales remain strong across China with combined deliveries of electric vehicles and plug-in hybrids surging 43 percent from a year earlier to roughly 84,000 in June. EV sales last month jumped 30 percent to around 62,000 while plug-in hybrid deliveries more than doubled to about 22,000, according to the China Association of Automobile Manufacturers.

In the first six months, approximately 412,000 EVs and plug-in hybrids were sold in China, a 112 percent gain. The first-half tally represents 313,000 EVs and 99,000 plug-in hybrids, which surged 96 percent and 182 percent, respectively.

Domestically produced EVs, plug-in hybrids and fuel cell vehicles qualify for government subsidies. The Chinese government plans to phase out subsidies for EVs and plug-in hybrids by 2020 to ease fiscal burdens.

43. Multiple Forces Push EV Plans for China

All automakers are planning to produce significant volumes of electric vehicles in China. They don't have much choice – the Chinese government has enacted policies that make it difficult not to. Foreign automakers in China have diverse strategies to deal with the mandates. The end goal is the same, however: to meet the Chinese government requirements.

China's policies do, indeed, force automakers to produce a certain number of electrified vehicles or face stiff fines. The approach is twofold: China has a carbon credit system modeled on California's Zero Emission Vehicle program under which automakers must earn a certain number of carbon credits per year based on overall sales. China also has strict standards which automakers would find nearly impossible to meet without including some electrified vehicles in their portfolios.

There also is strong pressure from the Chinese government to produce battery-electric and plug-in hybrid electric vehicles to meet Beijing's target of such vehicles accounting for 20% of China's passenger-vehicle production and sales by 2025.

Ford has pledged to produce by 2025 an electrified variant of all models it manufactures with its Chinese partner Chongqing Changan Automobile Co. But Ford has also gone a step further, forming a joint venture with China's Zotye Auto to produce lower-priced EVs. The aim, says Trevor Worthington, Ford's vice president-product development for Asia Pacific, is to sell electric vehicles in as many segments as possible.

"We know that there are fully electrified segments that we are not going to be able to hit the way we do things," he told WardsAuto during Auto China in Beijing. "Everybody is trying to be in the right place with the right products, and to make money."

Producing electrified vehicles with different partners for different segments also helps Ford develop relationships with battery suppliers, the real key to an EV's cost. "If you start dealing with (the suppliers) on a more regular basis, they become part of the family," says Worthington.

Volkswagen is forming a joint venture with Anhui Jianghuai Automobile Co. to produce lower-priced electric vehicles. "Our new joint venture with JAC will produce battery-electric vehicles for the competitive mass market," says Jochem Heizmann, president and CEO of Volkswagen Group China.

VW also will produce electrified vehicles with FAW and SAIC, its two long-standing partners in China. In 2020, it will begin to produce vehicles at both JVs based on its MEB platform, a modular architecture for EVs.

By 2021, Volkswagen will produce EVs with its three partners at six plants in China, says a VW spokesman. "We are prepared to deliver up to 1.5 million NEVs to Chinese customers annually by 2025," he says, referring to new energy vehicles, which include battery-electric, plug-in hybrid and hydrogen fuel-cell vehicles.

General Motors doesn't need to form a new joint venture to produce lower-priced electric vehicles. It already has Shanghai General Motors Wuling Automobile, a three-way venture between SAIC, GM and Liuzhou Wuling Motor Co. Established in 2002, the partnership produces the Baojun brand of vehicles, including the Baojun E100, a small EV. GM just announced it has extended the E100's range from 155 km to 200 km (96 miles to 124 miles) and expanded sales to another city. The E100 starts at RMB46,800 (\$7,308 at current exchange rates) after national and local government subsidies.

GM SAIC, the automaker's main passenger-car JV in China, produces the Cadillac CT6 Plug-in and Buick VELITE 5 extended-range EV. VELITE is the name GM uses in China for the Chevy Volt.

Like all foreign automakers in China, GM has announced an aggressive electrified model launch schedule. It is "on track" to deliver 10 new-energy vehicles in China between 2016 and 2020, and "will maintain momentum by doubling the number of new energy vehicles available" between 2021 and 2023, the automaker said in a press release.

Beijing threw a monkey wrench into foreign automakers' planning by announcing in April that it would allow 100% foreign ownership of companies producing EVs. Previously foreign automakers could own only 50% of a company producing automobiles for the domestic market.

44. China Eyes More Cuts in EV Subsidies

China is considering a further reduction in electric-vehicle subsidies next year as the government pushes automakers to innovate rather than rely on fiscal policy to spur demand for alternative-energy cars. The average sales incentive per EV may be lowered by more than a third from the 2018 levels, said the people, who asked not to be identified disclosing information that isn't public.

Vehicles may be required to be able to go at least 200 kilometers (125 miles) on a single charge to be eligible for incentives, up from 150 kilometers currently, said the people. The plan is still under discussion and subject to changes, they said.

Subsidies have been key to making plug-in hybrids and EVs from companies such as BYD more affordable to Chinese consumers and helping the country surpass the U.S. as the world's biggest in 2015.

The central government spent 6.64 billion yuan (\$1 billion) last year funding consumers' purchases of such autos. On top of what the federal government spends, Chinese cities and provinces separately offer incentives to make EVs more appealing in a country where automakers from Volkswagen AG to Ford Motor Co. are planning to increase EV offerings.

The government is scaling back subsidies to place more emphasis on the need for technological improvements to ensure the industry's long-term success. As part of new rules that went into effect on Feb. 12, China lowered subsidies by varying degrees for EVs with a driving range of less than 300 kilometers. At the same time, the incentive for those that have a range of 400 kilometers and beyond was raised to 50,000 yuan.

Beijing Electric Vehicle Co. (BJEV) has started offering battery-swap and rental services to consumers to help lower purchase costs and ease range anxiety. The company sells a version of its EV300 compact car for 79,800 yuan that allows users to change batteries as often as they want for a monthly fee of 432 yuan.

The century-long dominance of gasoline-engine cars will sputter in coming decades as incentivized Chinese buyers and more-efficient manufacturers combine to put EVs atop the sales leader board.

By 2040, more than half of all new car sales and a third of the planet's automobile fleet -- equal to 559 million vehicles -- will be electric, according to a global outlook published by Bloomberg New Energy Finance (BNEF) in May. EVs will achieve upfront cost parity with internal-combustion engines beginning in the mid-2020s, helping trigger a tectonic shift in car sales, it said.

45. China to Track All Electric Vehicle Batteries

China will introduce a scheme to certify and trace electric vehicle batteries from August 1. The Ministry of Industry and Information Technology released provisions on July 3 that will require companies manufacturing and recycling electric vehicles and batteries to adopt the scheme, reports People's Daily. Manufacturers and importers will also have up to a year to enter stocked electric vehicles into the scheme, which will log battery repairs, expiration and recycling. Sales in China accounted for more than half of the 1.2 million electric vehicles sold worldwide in 2017. As the first generation of vehicles approaches retirement, the volume of spent lithium-ion batteries is expected to increase significantly. China largely relies on imports of lithium to manufacture batteries but hopes the new scheme will help it develop effective recycling of the metals in used car batteries.

46. China's Unbridled EV Push Puts Pressure on Battery Makers

OptimumNano Energy Co., China's third-largest battery maker for electric vehicles, disclosed recently that it will suspend battery cell production for six months. The Shenzhen-listed company, which is using less than 23 percent of its production capacity, is far from the only Chinese battery maker in trouble.

Burdened with underused plants, dozens of EV battery suppliers have gone out of business in China since 2015. And more likely will meet the same fate down the road.

Beijing started offering generous subsidies for EVs in 2009 in the hope that domestic automakers and suppliers could become world-class players in the EV market. EV output has increased substantially across China. Last year, production of electrified vehicles, most of which were battery EVs, jumped 54 percent to approach 800,000.

Manufacturing capacity for EV batteries has also surged in tandem. By the end of 2017, combined annual capacity of EV battery makers in China topped 200 gigawatt-hours, double the tally a year earlier. But only about 40 percent of the total factory capacity was used last year, according to estimates disclosed by ChinaEV100, a Beijing industry body whose members include a wide range of domestic EV makers, suppliers and related government agencies.

Among China's top 10 EV battery makers, only Contemporary Amperex Technology -- the largest -- had a healthy capacity utilization ratio of nearly 90 percent in 2017. BYD Co., the second-largest maker, was using only 44 percent of its plant capacity. And utilization rates for the other eight companies varied from 10 to 40 percent.

Some 50, or one third of EV battery suppliers in China, were forced to close from 2015 to 2017, according to ChinaEV100.

The shakeout comes as the Chinese government has significantly raised technical standards on EVs as well as batteries over the past three years. At the beginning of the year, the minimum range for electric passenger vehicles that qualify for government subsidies was hiked to 150 kilometers (93.2 miles), up from 100 km in 2017 and 80 km in 2015.

The government has also raised the threshold on energy density of batteries in EVs eligible for subsidies to 105 watt-hours per kilogram from 90 watt-hours previously.

Like OptimumNano, the majority of EV battery suppliers in China mainly produce lithium ion phosphate batteries, which are cheaper and also lower in energy density compared with other types of batteries used in EVs.

The government's rising technical standards require EV battery makers to quickly switch production to more powerful batteries. But that's something only a few suppliers can pull off because battery production is both capital intensive and technologically complicated.

EV battery makers will continue to grapple with unwanted capacity and more of them will succumb over the next two years, ChinaEV100 predicted.

47. Beijing Looks Ahead To 'Low Carbon' Winter Olympics

China again vowed that the Winter Olympics in 2022 will be climate friendly. On June 13, which was marked by China's 6th "National Low Carbon Day", the Ministry of Ecology and Environment, Beijing Olympic Games Organizing Committee, and the Beijing Municipal People's Government announced a plan to curb carbon emissions at the games.

The "Low Carbon Winter Olympics Initiative" includes a transregional carbon emission trading agreement between Beijing and neighboring city Chengde, and a plan from co-host city Zhang Jiajie to create a "Low Carbon Olympics Special Zone" in Chongli county. A slew of new energy demonstration projects was also announced, including help for six impoverished counties to receive subsidized distributed solar energy. The specifics of these projects are yet to be revealed.

48. Coal Is No Longer the Main Source of Air Pollution in Beijing

On May 14th, Beijing released a new round of research results on the source resolution of fine particles (PM2.5). Research shows that local emissions account for 2/3 of the main sources of PM2.5 in Beijing and 1/3 comes from regional transmission. Of the local emissions contribution, mobile sources, dust sources, industrial sources, living surface sources, and coal-fired sources accounted for 45%, 16%, 12%, 12%, and 3%, respectively, while agriculture and natural sources accounted for about 12%. This also means that the share of coal-fired sources fell from 22.4% in the previous round of source analysis to 3%, and has basically exited the ranks of major contributors, indicating that Beijing's energy clean-up strategy has achieved important results. At the same time, the proportion of mobile sources in local emissions has increased significantly. In this research, the proportion of local sources of mobile sources was as high as 45%, which was 1.4 times that of the previous analysis (31.1%).

In recent years, Beijing has adhered to the strategy of energy cleansing, vigorously promoted the reduction of coal consumption in industrial and living areas and endeavored to build a clean energy system supplemented by electricity and natural gas, and geothermal energy and solar energy. On the one hand, the four major gas-fired thermoelectric centers have been successively

built, basically eliminating 10 tons of steam and below, 35 tons of coal-fired boilers in the built-up area, and basically no coal-fired in the industrial sector. On the other hand, it will increase the management of bulk coal and vigorously implement “coal to power change” and “coal to gas reform”, and on the basis of realizing the basic “non-coalification” of the core area in 2015, we will achieve basic urban areas in the Sixth District and the Southern Plain in 2017. The total coal-fired power in the city fell from 23 million tons in 2012 to less than 6 million tons in 2017.

From the results of the new round of source analysis, mobile sources are the largest source of Beijing's local atmospheric PM2.5 during different periods of time and space throughout the year, among which diesel vehicles driving in Beijing have the largest contribution.

Experts put forward three suggestions: First, strengthen the management of mobile sources (especially diesel vehicles); Second, continue to deepen regional joint prevention and control work, focus on key periods, key transmission channels, optimize industrial layout, and strengthen emergency response during heavy pollution; The third is to continue to strengthen scientific and technological support and enhance the ability to control pollution and accurately control pollution.

49. Blue Sky Push Aims at Diesel Vehicles

China intends to implement its strictest vehicle emissions regulation yet to further reduce air pollution, the Ministry of Ecology and Environment said in a recent report. The ministry will expand supervision over the quality of diesel products and diesel engines and increase the use of rail transportation in freight services to cut back air pollution, the report said.

Emissions from diesel trucks, which make up only 7.8 percent of automotive vehicles in China, account for 57.3 percent of nitrogen oxide and 77.8 percent of particulate matter in the country's air, two major polluters, according to the report.

Motor vehicles have emerged as a major source of China's air pollution, it said.

As of 2017, China had been the largest vehicle producer and buyer in the world for the nine consecutive years, with 310 million vehicles on its roads at the end of last year, up 5.1 percent from the previous year. These vehicles emitted about 43.59 million metric tons of pollutants, down 2.5 percent year-on-year, the report showed.

Yin Hang, head of the Policy Research Department of the ministry's Vehicle Emission Control Center, said China has phased out more than 20 million outdated diesel vehicles in the past five years. The country should further supervise production, use and elimination of automotive vehicles to reduce air pollution, Yin said at a recent forum on air pollution control.

In 2017, ports in Tianjin and Shandong province banned the use of diesel trucks to transport coal in the Bohai Sea area to improve air quality.

An analysis of air pollutants in 15 major Chinese cities showed that local mobile emitters, a category that includes vehicles, contributed about 13.5 percent to 41 percent of fine particulate matter, according to the ministry.

Beijing has made addressing motor vehicle emissions a focus of this year's air pollution control work. High-emissions vehicles will be taken off the roads in the capital to help control smog—

extending the ban on such vehicles within Beijing's Sixth Ring Road—said Mayor Chen Jining at the opening of the first session of the 15th Beijing People's Congress in January.

Liu Bingjiang, head of air quality management at the ministry, said, "Targeting motor vehicle exhaust emissions is a precise treatment for Beijing's smoggy weather, because studies have found they are the top source of the city's major air pollutants."

The factors causing Beijing's air pollution have changed dramatically, with coal-burning now accounting for less than 10 percent of the city's energy, and over 80 percent of Beijing's industries now in the service sector, Liu said at a news conference.

China will boost rail freight capacity by 2020 and raise the volume of goods delivered by trains by as much as 30 per cent, an environment ministry official said recently, as the country grapples with rising vehicle pollution. Ding Yan, vice-director of the vehicle emissions control center at the Ministry of Ecology and Environment, said trucks produced 13 times more pollution per unit of cargo than trains.

"Motor vehicles have become the primary source of pollution in many large and medium-sized cities," Ding said in comments published by the environment ministry. Vehicles are responsible for about 45 per cent of the particulate matter drifting over Beijing, Ding said.

While China has been making efforts to discourage road freight, particularly in the heavily polluted Beijing-Tianjin-Hebei region in northern China, it still accounted for 76.8 per cent of total cargo deliveries in 2017.

Although the government acted to restrict the transportation of coal by road, the share of rail in total freight volumes rose just 0.1 percentage point to 7.7 per cent last year, Ding said. To boost rail freight by 30 per cent by the end of the decade, the government will charge higher fees and introduce more stringent monitoring procedures to try to discourage road deliveries, Ding said.

50. Official: China's Vehicle Pollution Picture Very Challenging

China is facing a grim situation when it comes to controlling pollution from motor vehicles, said Ding Yan, deputy director of the Ministry of Ecology and Environment's vehicle emission control center, citing problems from manufacturing to fraudulent testing.

He called for improvements in environmental enforcement in a written statement in response to questions from China Daily. Motor vehicles are a major air polluter whose numbers are increasing sharply. Consequently, better enforcement is needed to help achieve goals set in a three-year air pollution action plan, Ding said.

The sale and manufacture of vehicles with excessive emissions has not been completely curbed and many emissions testers falsify results, he said.

Inspections by authorities have found that half the fuel stations in the Beijing-Tianjin-Hebei province region sell substandard diesel, and only 10 percent of the trucks in the region use the standard formula.

Road transportation, where diesel vehicles are common, is used for nearly 79 percent of the country's passengers and 77 percent of its freight.

And the limited number of environmental law enforcement officers with automotive vehicles has only made the problem worse, Ding added, noting that there are only about 3,000 such officers from 186 cities across the country. "On average, one officer needs to be responsible for 140,000 vehicles and pieces of mobile machinery. That's far from enough officers," he said.

While freight transported by rail should increase by 30 percent by 2020 from its level in 2017, plans are also in the works to launch a special campaign to reduce pollution from diesel trucks and establish a comprehensive supervision system for vehicle management.

Vehicle exhaust has been a major air polluter in China with emissions of 40 million metric tons of major pollutants annually, Ding said. Motor vehicles have been a top contributor of fine particulate matter in metropolises such as Beijing, Shanghai, Guangzhou and Shenzhen.

In Beijing, motor vehicles contribute 45 percent of the pollutants. In Shenzhen, the contribution is even higher, at about 52 percent, Ding said.

51. Tackling Pollution Woes: NITI Proposes 15-Point Action Plan 'Breathe India'

The National Institution for Transforming India, NITI Aayog, has proposed a 15-point action plan for combating air pollution in the ten most polluted cities in the country, including Delhi, Kanpur and Varanasi. The draft action plan titled 'Breathe India' includes encouraging electric vehicles, phasing out private diesel vehicles and development of a crop residue utilization policy.

According to a recent WHO database (2018), Kanpur, Faridabad, Gaya, Varanasi, Agra, Gurgaon, Muzaffarpur, Lucknow and Patna are the top ten most polluted cities in India. Recently, the air quality of Delhi had deteriorated beyond severe level because of a ground-level dust storm in western India, according to the Central Pollution Control Board data. Every year, air quality of Delhi plummets to very poor levels during winter season.

The action plan also includes expediting strategic decommissioning of old and inefficient power plants and implementation of a large-scale feebate program from 2020 onwards.

"Increase distribution of electric and hybrid vehicles: This should be carried out through necessary financial measures and infrastructural support. The procurement of electric vehicles (EVs) should be mandatory for vehicles for Central Government use and certain public facilities. "All central government offices should replace existing fleets older than 15 years to electric vehicles in the next 3 years i.e. by 2021 April," the draft paper said.

It also pitched for encouraging electric two and three-wheelers, saying a scheme to convert existing ICE (internal combustion engine) autos into electric ones either by retrofitting or by discounting the residual value of the existing auto from a new electric auto should be launched.

"Additional incentives like free registration and ease of getting permits for electric 2 wheelers and 3 wheelers should be immediately notified by MoRTH. In addition, all public transportation and 3 wheelers should adopt ZEVs (zero emission vehicles) by 2020," the paper suggested.

The report also said there is need to enact strong measures to curb vehicular emissions. "Prohibit transition traffic in these cities and phase out private diesel vehicles by 2022," it suggested.

The paper also favored implementing a large scale feebate program from 2020 onwards. A feebate is a policy by which inefficient or polluting vehicles incur a surcharge (fee), while efficient

ones receive a rebate (bate). Austria, Denmark, France, the Netherlands, Norway, Ontario (Canada) and Singapore have introduced variations of feebates according to the report.

The paper also suggested ensuring high grade low polluting coal to the power plant, implementing a National Emissions Trading System, adopting cleaner construction practices and implementing a business model to utilize crop residue and an integrated waste management policy.

It also called for concerted action from all levels of governance, cutting across ministries and departments.

52. Nearly 15,000 Premature Deaths Due to Air Pollution in Delhi: Study

Nearly 15,000 people died prematurely in Delhi due to pollution by fine particulate matter in 2016, according to a new study which ranked the national capital third in a list of cities reporting most deaths due to air pollution.

Shanghai was ranked first in most premature deaths at 17,600 and Beijing second with 18,200 deaths due to PM2.5 pollutant.

“Air pollution is emerging as the main threat and to overcome it there is a need for a strong air quality management system and the Environment Ministry is finalizing a National Premier Action Plan to fight air pollution in Delhi,” said Anumita Roychowdhury, Director at the Centre for Science and Environment.

PM2.5 has been associated with significant adverse health effects, including cardiovascular diseases, lung diseases, cancer and premature deaths.

The PM2.5-related health impacts are notable for megacities across the globe, but Asian megacities have been suffering much more, the study said. The phenomenon of smog-hit cities became so common recently that the term ‘airpocalypse’ has become synonymous with polluted air, it said.

This study reports PM2.5-related long-term mortality for the year 2016 in 13 megacities of China, India, Bangladesh and Pakistan using an integrated exposure risk (IER) model.

In Indian megacities, the premature deaths were 14,800 in Delhi, 10,500 in Mumbai, 7,300 in Kolkata, and 4,800 in Chennai respectively.

Though China has taken initial steps with pollution control targets and strategy, there was an urgent need for government policy in India, Bangladesh and Pakistan, the study said.

This study highlighted the need for setting up decisive air quality targets by megacity authorities and advocates for joint regional efforts to control air pollution.

53. Delhi's Air Pollution Is Now So Bad It Is Literally Off the Chart

Smog more toxic than can be measured by monitoring devices recently blanketed the Indian capital, months before the start of Delhi’s traditional “pollution season”. A thick haze was visible across the city and some government pollution monitors have recorded concentrations of 999 – the highest they can measure – as dust storms kicked up in nearby Rajasthan state blanketed the region.

Though the billowing clouds of dust and sand were blamed for the immediate spike in pollution levels, the sight of dense smog engulfing Delhi months before winter has underscored a growing awareness that harmful air is a year-round problem for the city.

Air quality in Delhi usually begins to plummet in October when slower winds and cooler temperatures trap pollutants closer to the ground. But data published by the government's Central Pollution Control Board shows that air quality has been classed "very unhealthy" – with index scores as high as 270 – every April and May for the past three years, or since authorities began collecting and publishing the statistics.

Just a single day in April or May of the past three years had air classified as "good" – 12 April this year, when levels fell to 99. "It clearly shows that this is also a summertime problem," said Aishwarya Sudhir, an independent researcher who studies air quality in India.

Authorities have ordered a halt to all construction in the capital and its satellite cities until the weekend to reduce pollution levels, and doctors have advised people to stay indoors as much as possible.

Meteorologists said the presence of a layer of dust across the city is also trapping heat, sending temperatures soaring in excess of 40C.

Concern about north India's air quality crisis is usually most acute after the Hindu festival of Diwali in autumn, when hundreds of thousands of Indians release firecrackers that combine with existing pollutants to form a poisonous haze over the region that persists for months until temperatures cool. Public health experts said pollution levels on some days in November last year were the equivalent of smoking 50 cigarettes per day.

India, home to 14 of the world's top 20 most polluted cities, has the highest rate of respiratory diseases of any country. A leading lung specialist, Arvind Kumar, says the cancer patients he sees in Delhi are younger, more often female and more likely to be non-smokers than those outside the city.

Children are the most vulnerable: a 2015 study concluded about half Delhi's 4.4m schoolchildren had stunted lung development and would never completely recover.

But pressure on local and central governments to act usually clears along with the air in February when warmer temperatures help to thin the smog.

Sudhir said the recent spike in pollution was a wake-up call that Delhi's air is rarely safe. "Polluting activities keep going on in the city during summer, including construction, allowing road dust to linger, the operation of coal-fired power plants and other things," she said.

Under an action plan in place since January 2017, pollution levels of the kind recorded recently should have resulted in trucks being denied entry into the city, the closure of brick kilns and other polluting industries, and a ban on using diesel generators. Yet the government seems only to implement some of these measures, and only in response to public outcry, she said.

"We tend to act only when it's an emergency," she said. "There were forecasts that dust storms would sweep the entire region. They should have acted on these weeks ago, not when it became this severe."

54. Why Indian Carmakers Are Ditching Diesel Models and Focusing on Petrol Cars

Declining gap between petrol and diesel fuel prices, the rise in the cost of diesel vehicles post-BS-VI implementation and taxation on hybrid technology have reduced the popularity of diesel models and have also shifted the focus of the Indian carmakers to petrol cars, according to a report by ICRA.

With diesel heavy portfolios, OEMs like M&M, Tata Motors and Toyota were caught off-guard due to shifting preference towards petrol vehicle, which impacted their volume growth and hence market share.

Exhibit 2: Recent launches in UV segment also include petrol model

Segment	OEM	Model	Petrol	Diesel
UV	Toyota	Innova	√	√
UV	Toyota	Fortuner	√	√
UV	M&M	XUV 500	√	√
UV	Jeep/FCA	Compass	√	√
UV	Tata Motors	Hexa	X	√
UV	Tata Motors	Nexon	√	√
UV	Ford	Endeavour	X	√
UV	Ford	Ecosport	√	√
UV	MSIL	Vitara Brezza*	X	√
UV	MSIL	S-Cross	X	√
Mid-size	Toyota	Yaris	√	X

Source: ICRA research;

Recent SUV launches by all these OEMs included petrol models, which till recently couldn't be imagined due to minuscule share of petrol UVs in the larger SUV segment.

Moreover, the recent adverse regulation regarding the ban on 2.0L+ diesel vehicle in the NCR region

and Kerala has impacted the resale value of diesel cars. Further, dampening the popularity of diesel cars.

The report indicates that most OEMs today are investing in flexible engine assembly lines, instead of a dedicated assembly lines for diesel or petrol engine to optimally utilize resources.

Further, incremental investments in diesel engine capacity have taken a backseat, with some recent launches like Toyota Yaris, which was rolled out with the petrol option only.

The report also stated that OEMs will invest in diesel technology to comply with BS-VI emission norms, but the incremental capacity addition in a diesel engine is likely to be limited.

Regular increase in the retail price of diesel in small doses every month since January 2013 has significantly narrowed down the retail price gap between petrol and diesel fuels, making cost economics of owning a diesel PV relatively less favorable now than in the past.

Exhibit 1: Price differential between petrol & diesel prices



At present, the price difference between petrol and diesel price is just Rs 8.84 compared to Rs 29.60 in April 2012. Even the top leaders in the industry agree to the shift towards the petrol cars. In FY2018, the share of diesel vehicle declined to 38 per cent from 58 per cent in the FY2013.

The ICRA report also suggested that the petrol-diesel mix has exhibited high correlation with petrol-diesel price gap (price difference per liter of fuel), lower fuel price gap has resulted in customer preference shifting away from diesel vehicle.

Further, it is forecasted that the share of the diesel vehicles will further decline to 25 per cent post-BS-VI norms implementation due to further widening of the cost differential between petrol and diesel cars.

It is expected that post-BS-VI emission implementation, the diesel car will become Rs 75,000 dearer, while the petrol car will only see a hike of Rs 20,000 in price.

Exhibit 3: Cost economics will skew towards petrol post BS VI norms

	Petrol	Diesel
Cost differential for a new car		+Rs 90,000
Fuel Price (Rs/Lt)*	74.02	65.18
Average Fuel Efficiency (Kmpl)	14	18
Breakeven Km		54,021
BS VI Premium		+ Rs 60,000
New Breakeven Km		90,034

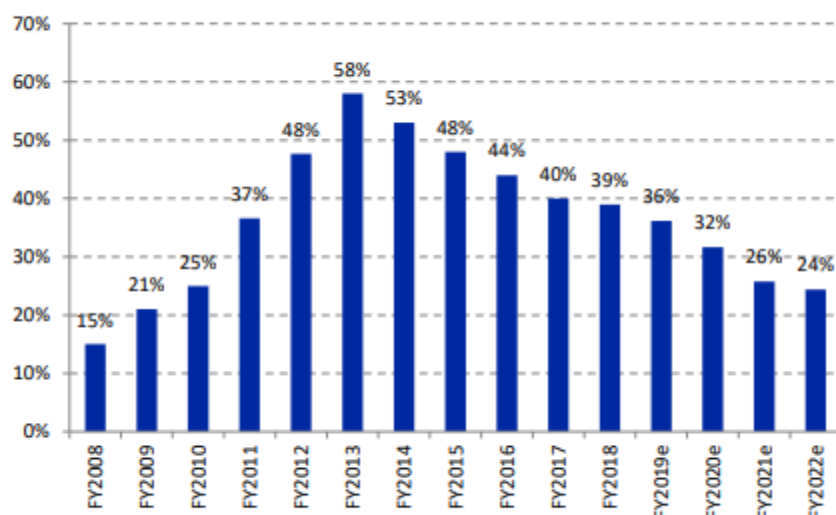
Source: ICRA research; Note: Breakeven calculation exclude maintenance expense. Given higher maintenance cost for a diesel vehicle, breakeven Km will be even higher
*Fuel prices are for New Delhi

On an average, a diesel car is currently priced about Rs 90,000 – 100,000 higher, compared to its petrol counterpart. With the advent of Euro-VI norms, the price gap will increase further to Rs 150,000 – 175,000, thereby further reducing the advantage of higher fuel efficiency.

Seeing the decreasing gap in petrol and diesel price, the breakeven level has widened from 33,000 km in June 2012 to 54,000 km at present.

Post-BS-VI implementation, the breakeven level will increase further to 90,000 km making diesel vehicle unattractive for a large chunk of small car buyers with the average yearly running of less than 15,000 km.

Exhibit 8: Overall diesel share to decline below 25% level in next 4 years in India



Source: ICRA research

The diesel hybrid cars, which on one hand increases fuel efficiency but the high taxation of 43 per cent is dampening the demand of diesel vehicles.

Currently, prohibitive tax structure on hybrid cars is a deterrent for OEMs to price their products competitively, compared to diesel counterparts. However,

this could change in long term due to increase in prices of diesel vehicle post BS-VI norms as well as possible tax change on hybrid cars complying with stricter emission norms.

The diesel engine has the advantage of torque at low RPM, which gets addressed by an electric powertrain, whereas petrol engine provides smooth performance at higher RPM.

55. India: 'There Has Been A Dramatic Shift to Petrol Cars'

Rahil Ansari, Head of Audi India, was in Greater Noida recently to meet with customers ahead of the Audi Sportscar Experience. He took some time out to have a chat with a local reporter. Excerpts:

How has 2018 been so far in terms of sales, as your rivals have had record-setting sales so far this year?

Honestly, the first half has not been all that exciting for us but we expect the second half to be much better as we have a more robust line-up. In the first half one problem we faced was that we did not have enough availability of petrol models, particularly on the new Q5 which has been corrected now, so things should pick up.

Are petrol engines coming back into fashion?

Yes, for a couple of reasons. The first is obviously the ten-year rule in the National Capital Region. The second is that we have been aggressively communicating that the total cost of ownership of a petrol-powered car is lower than a diesel-powered car. A few years ago, 90 percent of our sales were diesel cars, that number is today below 70 percent. On certain models petrol engines are closer to 40 percent of demand. Take the Q3 for example, the petrol engine option offers great value for money for people choosing to get into the brand as well as luxury. I expect this trend to continue.

What about performance cars like the RS5 and the R8?

Demand for these cars is of course limited, but even with those limited numbers demand for these products in India has been very robust. I believe Audi has established itself as a leader in this segment, products like the S5 and RS5 give owners an exhilarating experience without them needing to break the bank.

56. Emission Fiasco: NGT Asks Volkswagen To Explain Reasons for Not Recalling Cars

New Delhi: The National Green Tribunal has directed German auto major Volkswagen, which is embroiled in a global emission scandal, to explain reasons for not recalling 3.23 lakh cars and warned of penal action.

Volkswagen India had in December 2015 announced the recall of 3,23,700 lakh vehicles in India. The green panel noted that the company has recalled only 64 per cent of cars as undertaken by it and 36 per cent of the polluting vehicles were still on roads.

A bench headed by NGT Chairperson Adarsh Kumar Goel also asked the automobile company to reply why penal action should not be taken against it for not acting as per its undertaking.

"The manufacturers are also directed to file latest status report about the proceedings taken against them in other countries and explain reasons for not recalling the entire vehicles and why penal action be not taken. Based on further affidavits, the tribunal may have to determine the nature of directions which may need to be issued," the bench also comprising Justice R S Rathore said.

The green panel also directed that all parties be given a copy of Pune-based Automotive Research Association of India's (ARAI) 2015 report on emission tests conducted on diesel cars. The tribunal had earlier asked ARAI to explain details of tests carried out on diesel cars produced by Volkswagen. The order had come after the tribunal was informed that ARAI carried out tests at the instance of the Ministry of Heavy Industries and examined 11 BS-IV compliant diesel vehicles of the German company under different conditions.

The automobile giant had earlier submitted a roadmap before the tribunal to recall over 3.23 lakh vehicles in the country fitted with a 'defeat device' meant to fudge emission tests. A 'cheat' or 'defeat device' is a software in diesel engines to manipulate emission tests by changing the performance of cars.

Volkswagen India had in December 2015 announced the recall of 3,23,700 lakh vehicles in India to fix the emission software after ARAI conducted tests on some models and found that their on-road emissions were 1.1 times to 2.6 times higher than the applicable BS-IV norms.

The automobile giant had admitted to the use of 'defeat device' in 11 million diesel engine cars sold in the US, Europe and other global markets that allowed manipulation of emissions tests by changing the performance of vehicles to improve results.

After the tests by ARAI, Volkswagen India had undertaken to rejig the software by recalling around 3.23 lakh vehicles fitted with EA 189 diesel engines which were in alleged violation of emission norms. The company, however, had said that the recall in India was purely voluntary in nature as it did not face any charges regarding violating emission norms in India unlike in the US.

The counsel for the car manufacturer had told the NGT that ARAI, which is being consulted on the redesign of the software, had approved it for only 70 per cent of the 3.23 lakh vehicles. ARAI, however, had said the Volkswagen had submitted redesigned software for only 70 per cent and was yet to do so for the remaining 30 per cent.

The tribunal was hearing pleas filed by a school teacher Saloni Ailawadi and a few others seeking ban on sale of Volkswagen vehicles for alleged violation of emission norms.

57. Nissan Admits Emissions-Test Data Was Falsified

Staff at some of Nissan Motor Co.'s Japan plants falsified auto-emissions and fuel-economy data, the company said, in what is the latest data-faking incident among Japanese manufacturers. It is also the second compliance scandal at Nissan in recent months after it admitted to faults in vehicle inspection procedures.

Staff at four Nissan plants altered emissions and fuel-economy data for 913 cars tested as far back as 2013, the company said. More than a dozen vehicle models for the Japanese market were affected.

An internal review of vehicle testing also found other problems such as erroneous calibration of testing equipment.

Combined, bad testing and rewritten data affected a total of more than 1,000 cars.

Nissan said it found the problems during compliance checks launched at its plants after the discovery of flawed vehicle inspections last year. Other than one model still under investigation, Nissan said all of the affected vehicles met Japanese auto standards. The data alterations were made by staff to meet Nissan's own stricter internal standards, it said.

"A full and comprehensive investigation of the facts...including the causes and background of the misconduct, is under way," Nissan said.

A Nissan spokesman said the affected cars wouldn't be recalled because they all met Japan auto standards.

The Transport Ministry ordered Nissan to fully investigate the problem and, within a month, come up with measures to prevent a recurrence.

Late last year, Nissan said unauthorized workers at some plants in Japan had performed parts of final inspections—which includes confirming that the brakes and lights work—and inspection documents were then falsely stamped with authorized inspectors' seals, equivalent to a signature in Japan. Nissan recalled more than one million cars in Japan for re-inspection in that case.

In the past year or so, a string of Japanese companies has admitted to manipulating quality inspections, damaging Japan's global reputation for producing high-quality products.

Some employees at Japanese manufacturers have said pressure to cut costs and keep production lines moving amid rising global competition have resulted in quality control being sacrificed.

An internal Nissan report into the inspection scandal last year blamed management for setting unrealistic targets, relying on factory workers to figure out the details. As a result, factory workers cut corners to meet those targets and then hid the evidence, the report said.

Nissan's announcement also marks the latest in a series of emissions-testing scandals to rock the broader auto industry in recent years.

58. Indonesia Fights Pollution Ahead of Asian Games

As Indonesia prepares to host thousands of competitors and fans at next month's Asian Games, pollution concerns have flared following a spell of unhealthy air in Jakarta and forest fire hotspots near the second venue, Palembang in South Sumatra.

Traffic congestion in Indonesia's sprawling capital of 10 million consistently ranks among the world's worst, and it has long struggled to boost air quality, regularly rated as unsafe by the World Health Organization (WHO).

Organizers of the Asian Games, set to run from August 18 to September 2, drawing nearly 17,000 athletes and officials and more than 100,000 spectators, said they were working with city officials to tackle the pollution.

"It is expected that there will be better air quality at Asian games competition venues," the organizers said in a recent statement.

Strategies being considered include wider curbs on private cars depending on whether their license-plate numbers are odd or even, creating special lanes for the sports event, and building gardens.

Indonesia is following a path blazed by other large Asian cities, such as Beijing, which adopted traffic curbs and closed factories to improve air during the 2008 Olympics.

Jakarta's average score on the Air Quality Index (AQI) had exceeded 100 in the last week, said Budi Haryanto, an environmental health expert at the University of Indonesia. "Air quality is unhealthy, and this with the odd and even vehicle plate policy," he told reporters.

"Since athletes need to give their maximum performance for the competition, a better AQI is a must," said Haryanto, who felt the optimum would be less than 50.

Lung function is affected after over two months of daily exposure to an index reading below 200, Haryanto said, but gasoline emissions, a frequent pollutant in Jakarta, can be linked to cardiovascular and pulmonary diseases, besides cancer.

The smaller city of Palembang generally has cleaner air than Jakarta but can suffer the ravages of forest and land fires, sometimes blanketing the area in a thick haze.

"The primary pollutant sources in Jakarta are mostly traffic and industry, while in Palembang, it is mainly from peat land burning," said Hsiang-He Lee of the Singapore-MIT Alliance for Research and Technology. "Now is the peak of the burning season."

Authorities are looking into the possibility of cloud seeding to combat the hotspots by triggering rainfall in dry areas with flares of salt shot into suitable clouds.

AFRICA

59. Air Pollution Killing Thousands of Infants in Africa Study Says

Modest reductions in air pollution can prevent the deaths of tens of thousands of infants in sub-Saharan Africa each year, according to a new scientific study that investigated the link between breathable air pollutants and premature deaths in 30 countries across the continent. There is a "robust relationship" between breathable particulate matter and infant mortality in some of the world's poorest countries, according to researchers from Stanford University and the University of California, San Diego published recently in the journal *Nature*.

Although few pollution monitoring systems exist in Africa, the researchers combined satellite-based data estimating the concentration of air pollutant particles with household health survey data on the location and timing of almost 1 million infant births -- and any subsequent deaths -- between 2001 and 2015.

Particulate matter, one of many air pollutants, is believed by many experts to be the most harmful to human health. The term refers to small particles suspended in the air, including dust and black carbon originating from such sources as fossil fuel and biomass burning. Air pollution contributes to the global burden of heart disease, lung cancer, as well as respiratory diseases such as asthma and pneumonia, according to the World Health Organization (WHO).

Many people in Africa, where the process of rural electrification has been slow, still burn wood to cook or heat their homes. Other sources of pollutants may be natural, including large amounts of dust from the Sahara Desert.

Every 10-microgram-per-cubic-meter increase in the concentration of breathable particulate matter is associated with an increase of about 9 percent in infant mortality, an effect consistent over the 15-year study period, the study's authors say. They also estimate that a decrease in air pollution of 5 micrograms per cubic meter across Africa might have averted around 40,000 infant deaths in 2015.

"The principal sources of particulate matter differ across sub-Saharan Africa. As such, policies and approaches to reducing pollution may be most appropriately undertaken at the local and regional scale," Sam Heft-Neal, one of the study's authors, told the press. "In booming urban areas, many of the relevant technologies and policies are the same ones that have been applied in more developed economies: moving away from coal to cleaner feedstocks for electric power production, putting particulate filters on buses and trucks, and reducing traffic congestion."

Addressing biomass burning both in the farming fields and for cooking may require more comprehensive policies to rapidly move households up the energy ladder, he said, citing solar energy as "an excellent way to remove kerosene emissions" from homes.

The study also found that wealthier households were not immune from the negative effects of air pollution.

Although many African governments recognize the threat to lives from air pollutants, efforts to stem pollution have often lagged behind the more practical concerns of growing economies and attracting investors to develop local industry.

Some countries, however, are starting to act. In the East African nation of Uganda, where cars emitting black exhaust fumes are a common sight on the roads, a draft law proposes to ban imports of vehicles older than eight years. The bill, already approved by Uganda's cabinet, aims to curb imports of used Japanese cars that are seen as a major source of pollution in the urban areas.

According to the WHO, 97 percent of cities with more than 100,000 inhabitants in developing countries don't meet WHO air quality guidelines. That number decreases to 49 percent in high-income countries.

"The realities of our society are so difficult," said Denis Akankunda Bwesigye, a fellow at Uganda's Makerere University School of Public Health, citing the widespread use in rural areas of burning wood in the process of cooking.

Air pollution, he said, contributes significantly to the cases of pneumonia, which kills more than 24,000 Ugandan children under the age of 5 each year, according to government figures.

60. Ghana Disseminates Draft Motor Vehicle Emission Standards and Regulations

The Environmental Protection Agency of Ghana, with support from UN Environment and the Swedish International Development Cooperation Agency, drafted its Motor Vehicle Emission Standards and Regulations. The document was disseminated for review at a broader national stakeholder workshop from 20 - 21 June 2018 at the Institute of Environmental Studies in Amasaman, Ghana.

The objectives of the workshop, presented by Mr. Emmanuel Appoh, the Project Focal Officer and Deputy Director, Environmental Quality Department, Environmental Protection Agency of Ghana, were to:

- Engage stakeholders on the draft vehicular emissions standards and regulations
- Share experiences and best practices on implementing vehicular emissions standards and regulations in Ghana and the sub-region in general
- Solicit inputs from the stakeholders to finalize the draft vehicular emission standards and regulations
- Help disseminate the draft vehicle emission standards and regulations in Ghana

Some of the key recommendations proposed during the stakeholder's engagement workshop are as follows:

There is a need to involve all stakeholders or actors such as vehicle owners, dealers, testers, users of vehicles, policy makers, media, schools/institutions, transport unions and association groups in dissemination

The public awareness raising campaigns need to be very innovative. These can take the form of focus group discussions, workshops, animations, jingles, etc. The campaign should communicate benefits of emissions testing to road users especially commercial vehicle users

Capacity-building for personnel of the Environmental Protection Agency, Driver Vehicle and Licensing Authority, Ghana Standards Authority, and private test station operators on the standards and regulations, the use and calibration of the equipment, etc.

Institutional collaboration among all stakeholders was deemed paramount, such as the need for further consultation and engagement between key agencies on the modalities for implementation of the standards and regulations

There is a need to speed up full implementation of fuel quality standards (e.g. max 50ppm diesel sulfur content nationwide from local refining) to protect motorists through the fuel they buy

There is need to set guidelines/specifications for emission control systems on vehicles (i.e. exhaust gas recirculation, catalytic converters, diesel particulate filters, etc.) that would help meet and/or exceed the emissions requirements

Testing garages should be evenly spread across the country and not concentrated around major urban areas only. All testing equipment should be adequately calibrated and maintained. All testing data should be maintained and stored. Testing can be done for parameters not intended to be regulated - for example CO₂ and O₃ - to build a database for use in national planning

There was a robust discussion on emission testing offences and penalties for non-compliance, and power of arrest for emission officers

There is a need to identify funding needs for implementation

GENERAL

61. Assessing the Recent Estimates of The Global Burden of Disease for Air Pollution:

The Global Burden of Disease (GBD) is a comparative assessment of the health impact of the major and well-established risk factors, including ambient air pollution (AAP) assessed by concentrations of PM_{2.5} (particles less than 2.5 µm) and ozone. Over the last two decades, major improvements have emerged for two important inputs in the methodology for estimating the impacts of PM_{2.5}: the assessment of global exposure to PM_{2.5} and the development of integrated exposure risk models (IERs) that relate the entire range of global exposures of PM_{2.5} to cause-specific mortality. As a result, the estimated annual mortality attributed to AAP increased from less than 1 million in 2000 to roughly 3 million for GBD in years 2010 and 2013, to 4.2 million for GBD 2015. However, the magnitude of the recent change and uncertainty regarding its rationale have resulted, in some cases, in skepticism and reduced confidence in the overall estimates. To understand the underlying reasons for the change in mortality, we examined the estimates for the years 2013 and 2015 to determine the quantitative implications of alternative model input assumptions.² We calculated that the year 2013 estimates increased by 8% after applying the updated exposure data used in GBD 2015 and increased by 23% with the application of the updated IERs from GBD 2015. The application of both upgraded methodologies together increased the GBD 2013 estimates by 35%, or about one million deaths. We also quantified the impact of the changes in demographics and the assumed threshold level. Since the global estimates of air pollution-related deaths will continue to change over time, a clear documentation of the modifications in the methodology and their impacts is necessary. In addition, there is need for additional monitoring and epidemiological studies to reduce uncertainties in the estimates for low- and medium-income countries, which contribute to about one-half of the mortality.

² "Assessing The Recent Estimates Of The Global Burden Of Disease For Ambient Air Pollution: **Methodological** Changes And Implications For Low- And Middle-Income Countries", [Ostro B¹](#), [Spadaro JV²](#), [Gumy S³](#), [Mudu P³](#), [Awe Y⁴](#), [Forastiere F⁵](#), [Peters A⁶](#), ¹University of California, Davis, United States.

62. Analyzing the Sulfur Cap Impact in The Cruise Line Sector

Wolfe Research is out with analysis on the impact in the cruise line sector of the global fuel emission standards due to go into effect in 2020. The firm says cruise line operators Royal Caribbean, Carnival and Norwegian Cruise Line Holdings will use less "Intermediate Fuel Oil" and more "Marine Gas Oil" to stay inside the new sulfur cap (0.5% m/m from 3.50%).

Wolfe on fuel changes: "Current spot prices for MGO are about 50% higher than current spot prices for IFO, so at current spot prices this would imply an earnings headwind. However, we believe the impact could be nicely positive for CCL and RCL and modestly negative for NCLH assuming the current fuel curve is indicative of future prices and assuming the decreased demand for high-sulfur fuel drives down the price of IFO. We also believe the mix shift from IFO to MGO could cause some incremental ships to come out of the market, even if only at the margin."