SEPTEMBER 2019

NEWSLETTER

International Regulatory Developments

TABLE OF CONTENTS

EUROPE 2
- Next Step in RDE and WLTP Implementation 2
- Update on the State of Play on Real Driving Emissions' Conformity Factors 2
- Council approves HDV Emissions Regulation on PEMS PN and Cold Start Procedures 2
- Council adopts Candidate List for Appointment as Commissioner 3
- ENVI Study on EU Environment and Climate Change Policies 3
- Reduction of National Emissions – Air Pollution Control Programmes 3
- EEA Report – How to accelerate Change towards Sustainability 4
- EEA Briefing on Financial Incentives 4
- German Climate Cabinet Measures 5
- UBA Report on Real-Driving NOx Emissions 5
- T&E claims Higher SUV Sales and not Diesel Decline increased CO_2 Emissions 5
- T&E Report shows Low Emission Zones are a Success 6
- Uncertainty about Crit'Air Study into Euro 6 Diesels 6
- Madrid announces new Strategy to meet EU Air Quality Objectives 6
- T&E claims 51 million 'Dirty Diesels' are on the road in the EU 6
- T&E Report on Emissions from Gas-Fuelled Trucks 6
- TRUE Report on Remote Sensing Results in Paris 7
- First SCR Retrofit Solution for Trucks accredited under UK's CVRAS Scheme 7

NORTH AMERICA 8
- NHTSA, EPA Issue Final Rule Revoking CA Ability to Regulate GHG Emissions 8
- CARB Workshop on Advanced Clean Trucks Regulation 8
- EPA Requires VW Group to Correct Fuel Economy Labels 8

ASIA PACIFIC 8
- China Considering No-Go Zone for Gasoline Vehicles 8
- China Air Quality Improvements 9
- Japan Fuel Economy Standards 2030 9

AFRICA 9
- ICCT Report on Global Progress Towards Soot-Free Diesel Vehicles 9

RESEARCH SUMMARY 10

FORTHCOMING CONFERENCES 11

AECC AISBL | bd. Auguste Reyers, 80 | B-1030 Brussels | Belgium | Tel: +32 2 7068160 | info@aecc.eu | www.aecc.eu

EUROPE

Next Step in RDE and WLTP Implementation

1 September 2019 marked a new step in the implementation of EU legislation on Real Driving Emissions (RDE) and World harmonised Light vehicles Test Procedure (WLTP).

All new vehicles now have to be RDE-compliant for NOx emissions with a Conformity Factor (CF) of 2.1. For PN, this was already the case as of 1 September 2018 (CF of 1.5). As of 1 January 2020, new Type Approvals will have to comply with a CF of 1.43 for NOx.

For WLTP, the EU measures for end-of-series cars came to an end. These measures allowed for a limited number of unsold vehicles in stock that were approved under the old emissions test (NEDC) to be sold the following year.

Update on the State of Play on Real Driving Emissions' Conformity Factors

On 30 September 2019, the Council of the EU published an information note from the Finnish Presidency regarding conformity factors for light passenger and commercial vehicles. The note sets out the political context of the Commission proposal to include the same conformity factors as set via the comitology procedure, submitted on 14 June 2019 to replace the partially annulled Commission Regulation (EU) 2016/646.

It states that 'A rapid adoption [of the proposal] is important in order to ensure clarity of standards governing emissions that have an impact on air quality'. The note is to be discussed at the Council (Environment) meeting on 4 October 2019 and was presented to the Competitiveness Council on 26 September to allow for consideration from the perspective of the internal market.

On 13 December 2018, the General Court of the EU ruled that the Commission was not empowered to amend the Euro 6 emission limits for the new real driving emission (RDE) tests. Therefore, the Court annulled the part of Regulation (EU) 2016/646 which established the conformity factors. On 22 February 2019, the Commission has decided to appeal the judgment of the General Court (Case C-179/19 P). On 14 June 2019, the Commission presented a proposal reintroducing the conformity factors set in the Commission Regulation declared illegal by the General Court. The Commission proposed to the European Parliament and to the Council to reinsert the conformity factors for new car models of 2.1 until 2020 and the already revised technical margin of error of 1.43 after 2020.

The Finnish Presidency stressed the need for a swift adoption of the proposal during the Competitiveness Council held on 26 September, arguing that a rapid adoption would ensure clarity of standards together with legal certainty to the automotive industry. Subsequently, the Commission added that the proposal must be adopted and enter into force before the ruling of the General Court of the EU of 13 December 2018 takes effect, on 23 February 2020. However, the Commission noted that while the Council is already well advanced on establishing the position, discussions have not yet taken place within the European Parliament's Environment (ENVI) Committee. The discussion in Parliament is expected to begin in November.

In the Council some Member States (Czech Republic, Poland, Slovakia, Romania and Spain) took the floor to stress that the value of conformity factors has to be maintained as, at this stage, the automotive industry would not have sufficient time to adapt to a reduction of the values. On the other hand, the Netherlands indicated that, according to the Joint Research Centre, the uncertainty margin in the conformity factors can be lowered, Denmark and Ireland join this call. In addition, the Netherland stated that there is no justification to use of temporary conformity factors for commercial vans.

The Rapporteur and Shadow Rapporteurs of the European Parliament's ENVI Committee are now expected to prepare the draft Report. The draft Report would then be discussed by the Committee, following which MEPs may submit amendments. In parallel, the Working Party on Technical Harmonisation of Motor Vehicles (composed of Council experts) is also expected to meet over the coming months and examine the proposal, in order to prepare the Council's internal position (General Approach). Member State Ministers are expected to present their views on the proposal during the Competitiveness Council to be held on 4 October 2019.

The full Council information note can be found at data.consilium.europa.eu/doc/document/ST-12509-2019-INIT/en/pdf.

Council approves HDV Emissions Regulation on PEMS PN and Cold Start Procedures

On 20 September 2019, the Council approved the adoption of the draft Commission Regulation amending EU rules on the type-approval of motor vehicles and engines with respect to emissions from heavy-duty vehicles (Euro VI).

The Transport, Telecommunications and Energy (TTE) Council decided not to oppose the adoption of the Commission Regulation. Following the favourable opinion of Member State experts, the Commission has sent the draft measure to the European Parliament and the Council for scrutiny. While the two institutions have until 13 October to raise any objection, the COREPER recommended to the Council to confirm that there are no grounds for opposing to the adoption of measure on 11 September, this was confirmed during a Transport, Telecommunications and Energy Council held on 20 September 2019. This implies

that, unless the European Parliament opposes by 13 October, the Commission would adopt the proposed measure.

The outcome of the TTE Council meeting is at www.consilium.europa.eu/media/40793/st12385-en19_v3.pdf.

Council adopts Candidate List for Appointment as Commissioner

On 10 September 2019, the European Council adopted the list of candidates for appointment as Commissioner. These include:

Mr. Virginijus Sinkevičius (Lithuania) as Commissioner-designate for Environment and Oceans. Amongst other things, Commission President-elect Ursula von der Leyen has asked him to 'lead on delivering our zero-pollution ambition'.

Ms. Sylvie Goulard (France) as Commissioner-designate for the Internal Market. Strengthening the single market is a stated priority, through a strategy that 'underlines the need for a more integrated approach to a future-proof industrial policy, development of the digital economy, and fair and effective taxation'.

In addition, European Commission's Executive Vice-President Mr. Frans Timmermans (the Netherlands) will coordinate work on the European Green Deal, which Mrs. von der Leyen said she wants 'to become Europe's hallmark'. This is to be presented in the first 100 days of the new Commission. Mr. Timmermans will be responsible for coordinating work on the zero-pollution ambition and will be the Commissioner for Climate.

More detail can be found at europa.eu/rapid/press-release_IP-19-5542_en.htm and ec.europa.eu/commission/sites/beta-political/files/mission-letter-frans-timmermans-2019_en.pdf.

The European Parliament then held the hearings for the Commissioners-designate.

Ms. Sylvie Goulard, the IMCO nominee, highlighted the need to enable companies to contribute to growth, including by supporting SMEs and cutting red tape. She also mentioned the circular economy and referred to the opportunities that solving the climate crisis could bring about for European industry. She was asked about Dieselgate and how she would implement reform. An MEP also asked how she would handle the regulation regarding conformity factors. On both subjects she was non-committal.

Mr. Virginijus Sinkevičius, nominee for Environment and Oceans Commissioner, outlined his areas of responsibility, namely biodiversity, circular economy and zero pollution. Other than saying that he wants to make pollution a 'thing of the past', he did not specifically mention air quality in his opening statement.

Questions were put to him on EU air quality legislation, clean air zones in cities, and stricter emissions criteria for Euro 7. In response, Mr. Sinkevičius talked of zero tolerance to non-compliance with air quality standards in Member States, and that Euro 7 is possible in five years. He did not respond directly to a question as to whether he plans to withdraw diesel cars from Europe but talked about helping industry be competitive as it transitions to hydrogen- and battery-powered vehicles.

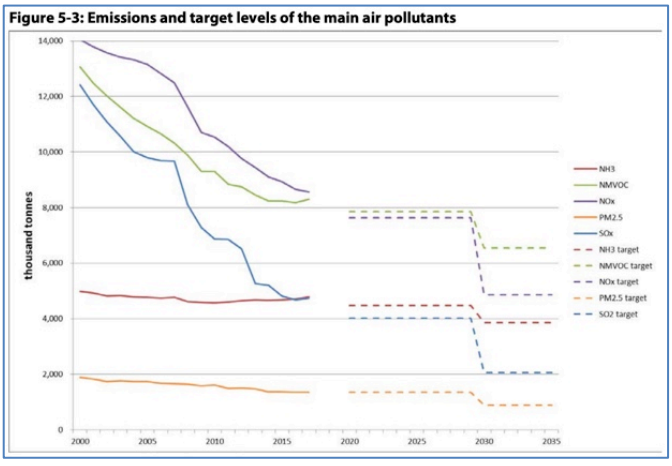
His written answers to the EP are available at www.europarl.europa.eu/resources/library/media/20190927RES62446/20190927RES62446.pdf.

ENVI Study on EU Environment and Climate Change Policies

On 18 September 2019, the Committee on the Environment, Public Health and Food Safety of the European Parliament (ENVI) published a study on '*EU Environment and Climate Change Policies: State of play, current and future challenges*'.

The report notes that 18 European Member States still need to accelerate reductions in NOx emissions by reducing transport emissions, particularly in urban areas. It also says that the European Commission is pursuing infringement cases again 20 Member States for persistent breaches of limits on NOx, SOx and particulate matter. The review of the Air Quality Directive will be a chance to address the current implementation gaps.

The chart below shows the gaps between current and target levels of some of the main pollutants.



The study can be found at www.europarl.europa.eu/thinktank/en/document.html?reference=IPOL_STU(2019)638428.

Reduction of National Emissions – Air Pollution Control Programmes

On 8 September 2019, the European Commission updated information on the National Air Pollution Control Programmes (NAPCPs) of the European Member States. The NAPCP

(Article 6 of Directive (EU) 2016/2284 – 'the NEC Directive') is the main governance instrument by which EU Member States must ensure that the emission reduction commitments for 2020 and 2030 are met.

This showed that 11 countries are still to submit either draft or final plans, although they were due to be received by 1 April 2019.

The Commission is required to examine the NAPCPs, including the possible attainment of the emission reduction commitments and the emission reduction trajectory between 2020 and 2030, in light of the Directive's requirements.

Detailed information is available at ec.europa.eu/environment/air/reduction/NAPCP.htm.

EEA Report – How to accelerate Change towards Sustainability

On 10 September 2019, the European Environment Agency (EEA) published a report titled '*Sustainability transitions: policy and practice*'.

On the subject of transport, it states that although air pollution from transport has decreased as a result of fuel and vehicle emission standards, air pollutant concentrations are still too high.

The report acknowledges that 'Emissions of air pollutants from transport… need to be drastically reduced without delay'.

The full report is available at www.eea.europa.eu/publications/sustainability-transitions-policy-and-practice.

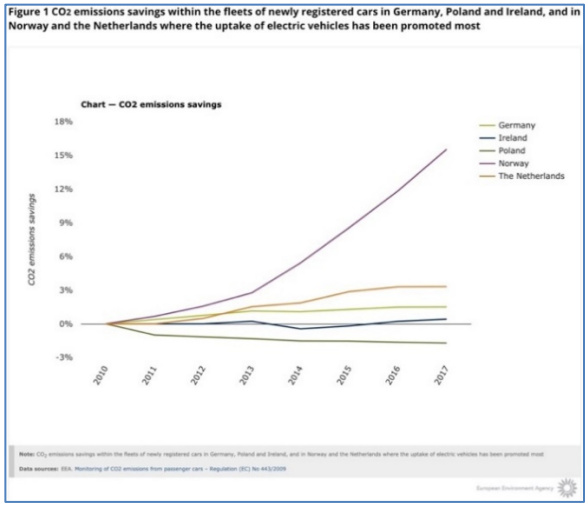
EEA Briefing on Financial Incentives

On 24 September 2019, the European Environment Agency published a briefing paper on the impact of financial incentives to encourage consumers to buy car with lower CO_2 emissions.

One of the main findings of the study is that countries that actively promote zero- and low-emitting cars, such as battery electric vehicles (BEVs) and plug-in hybrid vehicles (PHEVs), have significantly reduced CO_2 emissions.

There have also been other environmental benefits in these countries: emissions of air pollutants such as NOx and PM have decreased as a result of the uptake of electric vehicles.

The effects of tax incentives promoting low-emitting conventional cars on CO_2 emissions are less clear. Measures of emissions are based on officially reported 'type-approval' emissions, which are lower than 'real-world' emissions. The gap between type-approval CO_2 emissions and real-world emissions increased over the period 2010-2017. Therefore, the average real-world emissions of new passenger cars have decreased at a rate significantly slower than that predicted by trends based on type-approval emissions.



According to the 2018 EEA report *Electric vehicles from life cycle and circular economy perspectives*, an electric car in Europe produces on average less greenhouse gases and air pollutants than its petrol or diesel equivalent, across its life cycle.

The current study says that BEVs and PHEVs offer air quality benefits because of zero or low exhaust emissions of air pollutants such as NOx and PM. For example, the introduction of electric cars to the Norwegian fleet resulted in cumulative NOx and PM emissions savings of 17 % and 6.6 %, respectively, over the period 2010-2017.

Because diesel vehicles have lower CO_2 emission levels than petrol cars, the uptake of diesel vehicles has been incentivised in the past to meet CO_2 emissions targets. However, the dieselisation of fleets has led to negative effects on air quality. In Greece, the proportion of diesel cars in the fleet increased rapidly. This was due to the lifting, in 2012, of a long-standing ban on diesel cars in the two largest cities, Athens and Thessaloniki, and the lowering of taxes on diesel fuel. While these measures are thought to have resulted in large CO2 emissions savings (3.7 % in the period 2013-2017), they have also had adverse effects on air quality, as NOx and PM emissions increased drastically during the same period (by 44 % and 4 %, respectively).

The introduction of Euro 6 emissions standards meant stricter limits, which led to a reduction in the NOx emissions of the newly registered fleet. For all countries, the transition from Euro 5 to Euro 6 standards for conventional cars had a positive effect on NOx emissions: from a 4.3 % reduction in emissions in Norway to 10 % reductions in Ireland and Greece. For PM, the EU emissions standards were the same for Euro 5 as they are for Euro 6.

The full briefing paper can be found at www.eea.europa.eu/themes/transport/electric-vehicles/taxes-and-incentives-promoting-electric.

German Climate Cabinet Measures

On 20 September 2019, the German government's Climate Cabinet launched its latest climate protection package. The Climate Protection Programme 2030 includes measures from all areas.

In the area of transport, in order to promote electromobility, the purchase premium will be raised with the aim of driving seven to ten million electric cars in ten years' time in Germany. By 2030, one million charging points are to be available.

The public transport system is also to be massively funded, and the federal government is also investing in the rail network. Rail travel will be cheaper in the future by lowering the VAT, but flights will be more expensive by increasing the aviation tax.

A reform of the motor vehicle tax should provide an incentive to buy low-emission or emission-free vehicles.

Further information on the programme is at www.bmu.de/pressemitteilung/schulze-beschluesse-des-klimakabinetts-markieren-neuanfang-fuer-deutsche-klimapolitik.

UBA Report on Real-Driving NOx Emissions

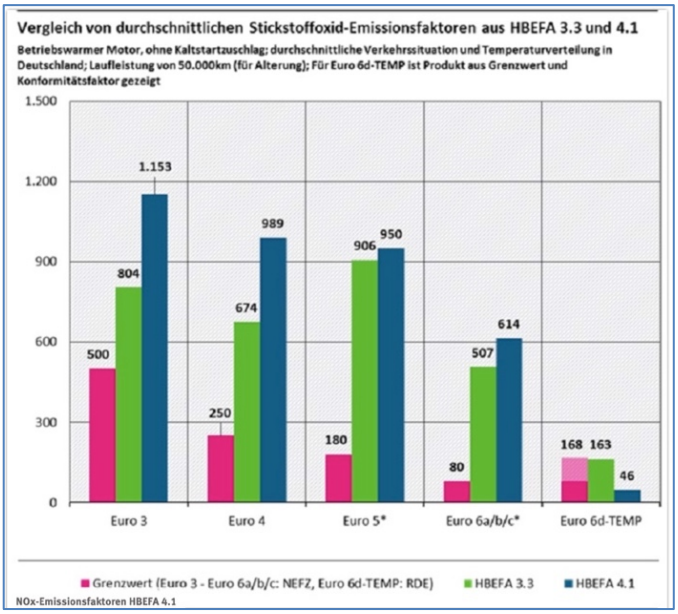
On 9 September 2019, the Umwelt BundesAmt (UBA, the German Environment Agency) published its analysis of the updated Handbook of Emission Factors (HBEFA).

It shows that NOx emissions of Euro 6d-Temp diesel cars comply with EU limits in real-world and laboratory conditions, although Euro 3 to 6a/b/c diesel cars continue to be much higher (and have increased since the previous update) in real-world driving than the laboratory.

Tests carried out on eight VW vehicles with EA 189 engines show that software updates reduce real-world NOx by 25%, with NOx emissions averaging 588mg/km. The UBA President uses this information to suggest that Euro 5 diesel cars with SCR must be retrofitted.

The chart below shows how emission factors have changed since the previous HBEFA update, with Euro 6d-Temp improving.

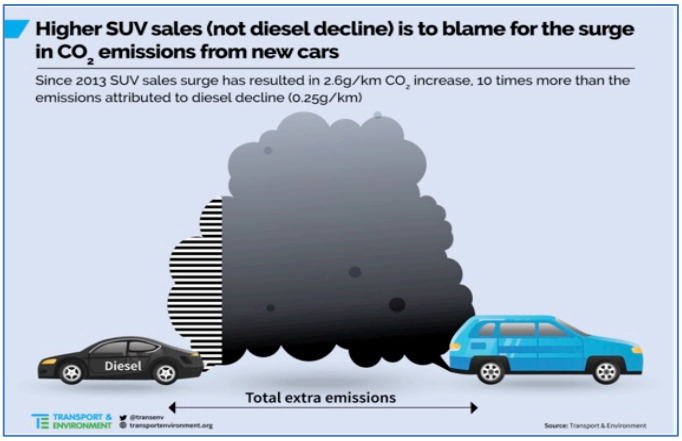
Further information is available at www.umweltbundesamt.de/presse/pressemitteilungen/reale-stickoxid-emissionen-von-diesel-pkw-nach-wie.



T&E claims Higher SUV Sales and not Diesel Decline increased CO_2 Emissions

On 9 September 2019, Transport & Environment (T&E) published a report showing how car manufacturers can reach their 2021 CO_2 targets and avoid fines.

It claims that higher SUV sales, rather than the decline of diesel cars, is to blame for the increases in CO_2 emissions over the last two years.



T&E expects the overall 95g/km CO_2 target to be met by 2021, although the level of achievement will vary by manufacturer. T&E however believes that overall emissions 'on the road' will be around 132g/km.

The report can be found at www.transportenvironment.org/sites/te/files/publications/T%26E_2019 09_Mission possible_vF.pdf.

T&E Report shows Low Emission Zones are a Success

On 10 September 2019, Transport & Environment (T&E) published a report showing that low emission zones have been successful, reducing nitrogen dioxide (NO_2) emissions by up to 32%.

To reach this conclusion, T&E studied a range of European cities where data were either officially declared or otherwise measured or estimated. One city (Madrid) measured a 32% year-on-year reduction and another (Lisbon) found NO_2 22% lower in one part of the city. Others typically showed reductions of up to 10%. T&E goes on to say that cities now need to move towards zero emission zones in order to protect citizens' health.

The report can be read at www.transportenvironment.org/sites/te/files/publications/2019_09_Briefing_LEZ-ZEZ_final.pdf.

Uncertainty about Crit'Air Study into Euro 6 Diesels

On 26 September 2019, it was announced through Crit'Air, the French vehicle emissions certification scheme, that a study planned to check the real emissions from the latest diesel vehicles may not be able to be carried out independently. It was intended to check whether emissions from Euro 6 diesel cars were as low as for petrol vehicles, and to rule on whether they could get a Crit'Air 1 vignette in the future as a result.

The environmental organisation Transport & Environment (T&E) as well as its French partners have provided technical advice for the implementation of the study but have apparently refused to participate in the study itself.

The announcement is available to read at www.lez-france.fr/se/aktuelles/2019-09-26.html.

Madrid announces new Strategy to meet EU Air Quality Objectives

On 30 September 2019, the City of Madrid announced a new strategy, MADRID 360, which is intended to meet the city's air quality obligations.

It says that initiatives will reduce nitrogen oxides (NOx) by 15% more than the previous anti-pollution plan – a reduction of 20% in 2023.

The Zero Line (zero emissions and zero cost to passengers) will be created, with two bus lines crossing the central district in a north-south and east-west direction. Currently only 68 out of 2 000 buses operate exclusively with electricity. In total, the EMT electric bus park will increase from 68 vehicles to 668 in eight years.

MADRID 360 will restrict access to the most polluting vehicles which do not have an environmental mark of the General Directorate of Traffic i.e. those with diesel engines and are registered before 2006 and gasoline prior to the year 2000). The limitations established in this new strategy will be implemented gradually and as of 1 January 2025, no 'A' vehicle will be allowed in the city. This measure is expected to lead to a reduction of up to 618 tons of NOx per year.

Access and circulation of high occupancy (two or more people) C vehicles will be allowed in the Central district. This strategy is said to be aligned with the Sustainable Development Goals of the United Nations 2030 Agenda.

Individuals will be helped to renew their vehicles. In total, €25 million per year will be available for private individuals who change their old vehicle for a ZERO, ECO or C vehicle.

Freight vehicles operators will be offered a total of €10 million per year to renewal the fleet and, in parallel, logistics centres will be created in the central district for the distribution of the last mile with clean vehicles.

Full details of the MADRID 360 plan are at www.madrid.es/portales/munimadrid/es/Inicio/Actualidad/Noticias/MADRID-360-la-estrategia-para-cumplir-con-los-objetivos-de-calidad-del-aire-de-la-Union-Europea.

T&E claims 51 million 'Dirty Diesels' are on the road in the EU

On 18 September 2019, Transport & Environment (T&E) also published a report with the statement that 'There are now 51 million dirty diesel cars on EU's roads'. These are described as Euro 5 and 6 diesel vehicles with NOx emissions at least twice the limit for NEDC tests or three times the limit for real-world tests.

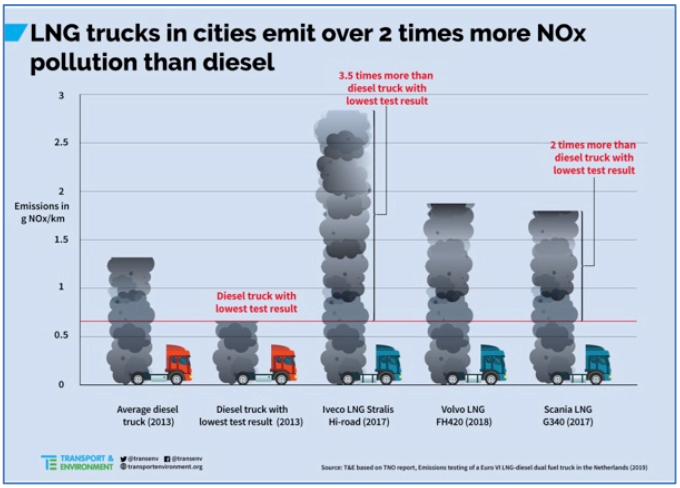
T&E says that as well as moving towards zero-emission mobility, it is important to 'sort out the legacy of Dieselgate'.

The report is available at www.transportenvironment.org/sites/te/files/publications/Dieselgate briefing 2019.pdf.

T&E Report on Emissions from Gas-Fuelled Trucks

On 17 September 2019, Transport & Environment (T&E) produced a report looking at emissions from gas-fuelled trucks compared with diesel. It is based on TNO data commissioned by the Dutch government.

Tests on three liquefied natural gas (LNG) trucks made in 2017 and 2018, and three early Euro VI diesel trucks from 2013, showed that NOx emissions from LNG vehicles were twice as high in cities and up to five times higher overall.



The data also show that there is little difference in CO_2 equivalent emissions between diesel and LNG.

T&E's conclusion is that tax breaks and funding for gas technology should be reduced in favour of cleaner options.

On 19 September 2019, the Natural and bio Gas Vehicle Association (NGVA) published a rebuttal claiming that gas vehicles are indeed cleaner than diesel, and saying that T&E had omitted some key information from the TNO study. It also pointed to another study that showed natural gas vehicles emitted 40-60% less NOx than the equivalent diesel trucks.

The T&E study is available at www.transportenvironment.org/sites/te/files/publications/2019_09_do_gas_trucks_reduce_emissions_paper_EN.pdf.

The NGVA response can be found at www.ngva.eu/wp-content/uploads/2019/09/NGVA-Europe_comments-on-the-TE-report.pdf.

TRUE Report on Remote Sensing Results in Paris

On 10 September 2019, the International Council on Clean Transportation (ICCT) published a report on remote sensing of vehicle emissions in Paris as part of The Real Urban Emissions Initiative (TRUE).

The study found during measurements from more than 180 000 vehicles that NOx emissions of Euro 6d-Temp diesel cars were about 70% lower than earlier Euro 6 vehicles. The sample size was small as only a limited number of Euro 6d-Temp cars were available at the time of testing.

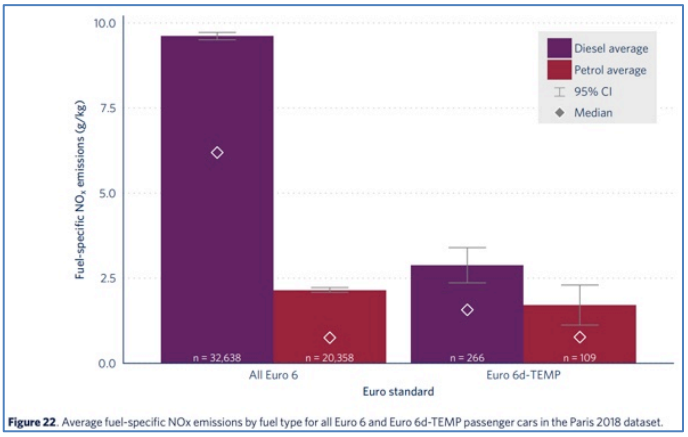


Figure 22. Average fuel-specific NOx emissions by fuel type for all Euro 6 and Euro 6d-TEMP passenger cars in the Paris 2018 dataset.

Early Euro 6 diesel NOx emissions were however only 18% lower than the oldest petrol cars. In-use NOx emissions of Euro 5 and 6 diesel cars were found to be 20-30% greater at temperatures above 30°C than at 20-30°C.

In its recommendations the report says that the data do not yet support a change to allow newer Euro 6d-Temp vehicles to qualify for Crit'Air 1 classification (which includes Euro 5 and 6 petrol cars), and that further testing is required before such a decision can be made.

The TRUE report is available at theicct.org/sites/default/files/publications/TRUE_ParisRS_study_20190909.pdf.

First SCR Retrofit Solution for Trucks accredited under UK's CVRAS Scheme

The first selective catalytic reduction (SCR) retrofit solution for conventional heavy goods vehicles has been accredited under the UK's Clean Vehicle Retrofit Accreditation Scheme (CVRAS), ahead of the introduction of Clean Air Zones in Birmingham and Leeds in 2020.

The retrofit SCR system, developed by Proventia OY for a (13-15 tonne) Mercedes Benz Atego truck, has been certified under CVRAS as achieving Euro VI-equivalent emissions levels. The CVRAS scheme has been developed by the Low Carbon Vehicle Partnership (LowCVP) and is managed by Energy Saving Trust. This first system approved for trucks paves the way for the HGV sector to embrace retrofits in the same way as the bus sector has done, capitalising on the support being offered by several local authorities to help operators meet the Clean Air Zone (CAZ) requirements.

The LowCVP announcement is at www.lowcvp.org.uk/news,lowcvp-news-first-scr-retrofit-solution-for-trucks-accredited.

NORTH AMERICA

NHTSA, EPA Issue Final Rule Revoking CA Ability to Regulate GHG Emissions

On 19 September 2019, the U.S. Department of Transport's National Highway Traffic Safety Administration (NHTSA) and the U.S. EPA issued a final rule entitled the "One National Program Rule on Federal Pre-emption of State Fuel Economy Standards" that revokes California's authority to enforce greenhouse gas emission standards for cars and light-duty trucks, as well as zero-emission vehicle (ZEV) mandates.

The rule finalises parts of the Safe Affordable Fuel-Efficient (SAFE) Vehicles Rule that was proposed in August 2018. Following release of the final rule, on 20 September a coalition of states led by California filed a lawsuit against the Trump administration challenging its decision to revoke California's GHG waiver authority.

Specifically, in the final rule: 1) NHTSA is affirming that its statutory authority to set nationally applicable fuel economy standards under the express pre-emption provisions of the Energy Policy and Conservation Act dictates that such state and local programmes are pre-empted; and 2) EPA is withdrawing the Clean Air Act pre-emption waiver it granted to California in January 2013 as it relates to California's GHG and ZEV programs. Note: California's ability to enforce its Low Emission Vehicle (LEV) programme and other clean air standards to address criteria pollutant vehicle emissions is not affected by the rule.

Full details of the rule are available at www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/safe_vehicles_rule_part1_09192019.pdf.

CARB Workshop on Advanced Clean Trucks Regulation

On 21 August 2019, the California Air Resources Board (CARB) held a public workshop to discuss the latest updates to the agency's Advanced Clean Trucks regulation.

During the meeting, CARB staff presented updated details on the proposed manufacturer requirements affecting vehicles sold in California beginning with the 2024 model year, as well as updated information on banking and trading of zero-emission credits generated from their sale. Staff also presented updated details on the proposed reporting requirement for large entities. The proposed regulation has two components: a manufacturer sales requirement and a reporting requirement. Current proposal applies to model years 2024 to 2030.

The staff report for the Advanced Clean Trucks regulation, including the final draft regulatory language, is scheduled to be released in October. The CARB Board plans to consider initial approval of the regulation at the December 2019 Board hearing, with a final decision expected at a second hearing in mid-2020.

More information on the workshop is at ww2.arb.ca.gov/our-work/programs/advanced-clean-trucks/act-meetings-workshops.

EPA Requires VW Group to Correct Fuel Economy Labels

On 30 August 2019, the U.S. Environmental Protection Agency (EPA) announced that it is revising fuel economy estimates for a number of 2013-2017 Audi, Bentley, Porsche and Volkswagen vehicles to ensure consumers are given accurate values. EPA is also requiring the Volkswagen Group to forfeit emissions credits under the greenhouse gas (GHG) emissions standards for light duty vehicles to account for under-reporting emissions.

In the course of the investigation concerning defeat devices in Volkswagen's diesel vehicles, the EPA and the California Air Resources Board discovered that the company employed software to manage vehicle transmissions in gasoline vehicles. This software causes the transmission to shift gears during the EPA-prescribed emissions test in a manner that sometimes optimises fuel economy and greenhouse gas (GHG) emissions during the test, but not under normal driving conditions. The company employed this software in roughly one million gasoline, light-duty vehicles from model years 2013 through 2017 sold by Volkswagen in the United States under the brand names Volkswagen, Audi, Porsche, and Bentley.

More information is at www.epa.gov/recalls/fuel-economy-label-updates.

ASIA PACIFIC

China Considering No-Go Zone for Gasoline Vehicles

On 23 August 2019 the Chinese government confirmed that that Ministry of Industry and Information Technology (MIIT) had released a document which stated that it is considering testing a ban on gasoline-powered vehicles in some parts of the country and may set a timetable to eventually phase out such vehicles.

The government has encouraged sales of electric vehicles as part of a crackdown on pollution, but auto industry officials doubt it will completely phase out traditional internal combustion engines given regional differences in climate and environment. Authorities must first analyse factors such as market demand and emission levels to decide whether to test no go zones for gasoline-fuelled vehicles, according to the MIIT document.

The document was issued in response to a proposal from China's parliament on 16 July 2019. The ministry may formulate a timetable to phase out gasoline-fuelled vehicles, according to the document, but did not say if it would be specific to certain parts of the country or a nationwide phase out. China's southern province of Hainan said in March 2019 that it plans to stop selling gasoline vehicles by 2030.

The Chinese government announcement is available at english.www.gov.cn/policies/policywatch/201908/23/content_WS5d5f36f1c6d0c6695ff7f2b2.html.

China Air Quality Improvements

On 30 September 2019, the Chinese Ministry of Ecology and Environment (MEE) issued a statement saying that air quality in China's major cities has improved significantly. The 74 major Chinese cities that adopted the new air monitoring standard in 2013 saw their average concentration of $PM_{2.5}$ particulate matter drop by 41.7% over the past six years, with Beijing said to have seen experienced an even bigger drop of 43%.

The Minister of Ecology and Environment also said the average density of sulfur dioxide in cities above prefecture-level across the country declined from 35 to 14 micrograms per cubic meter last year, down by 60%.

The full press release can be found at english.mee.gov.cn/News_service/media_news/201909/t20190930_736291.shtml.

Japan Fuel Economy Standards 2030

On 27 September 2019, the International Council on Clean Transportation (ICCT) published a report on Japan's new fuel economy standards starting in model year 2030. The standards require an average fleet gasoline-equivalent fuel economy of 25.4 kilometres per litre by 2030, a 32.4% improvement over the fleet average for fiscal year 2016.

the scope is expanded to electric vehicles (and consequently upstream energy efficiency is considered), the test cycle has changed to the Worldwide Harmonized Light Vehicle Test Procedure (WLTP), and bin-based targets for different vehicle weights are replaced with a linear curve with a minimum fuel economy floor for the heaviest vehicles. The regulatory agencies plan to finalise all regulation details by the end of fiscal year 2020.

The changes place Japan behind Europe in its target ambition, but ahead of others.

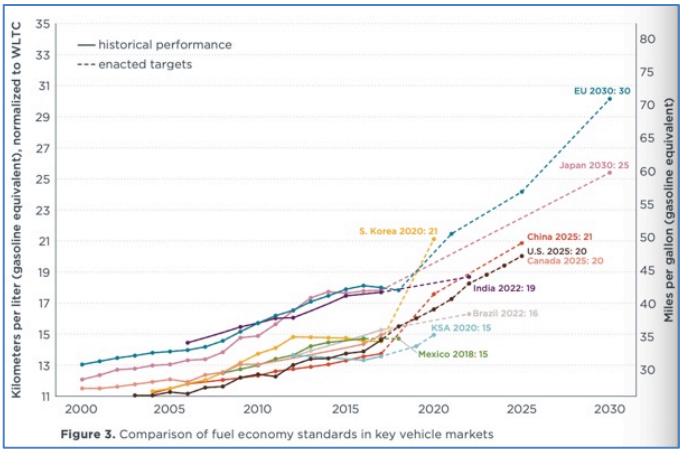


Figure 3. Comparison of fuel economy standards in key vehicle markets

The ICCT report can be found at theicct.org/sites/default/files/publications/Japan_2030_standards_update_20190927.pdf.

AFRICA

ICCT Report on Global Progress Towards Soot-Free Diesel Vehicles

On 23 September 2019, the International Council on Clean Transportation (ICCT) published a report 'Global Progress Toward Soot-Free Diesel Vehicles in 2019'. This report assesses global progress in 2019 toward reducing black carbon emissions from diesel on-road light-duty and heavy-duty vehicles. It says that as of July 2019, 39 countries have implemented "soot-free" standards for new heavy-duty diesel engines that achieve a 99% or greater reduction in black carbon emissions compared with older-technology diesel engines.

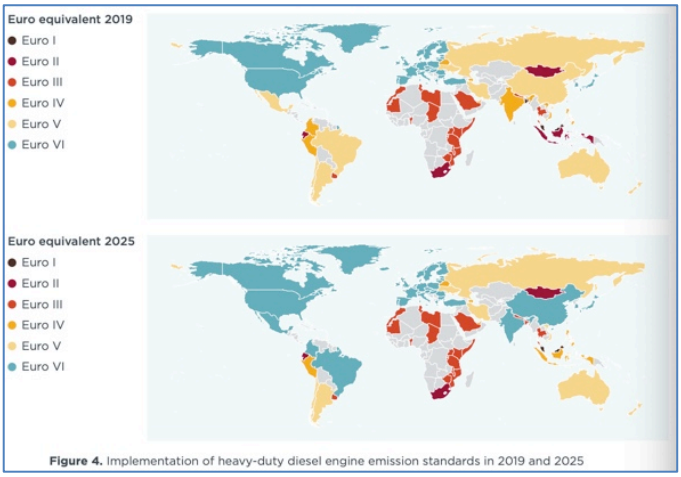


Figure 4. Implementation of heavy-duty diesel engine emission standards in 2019 and 2025

Five countries have adopted such standards for implementation before 2025, and at least six countries are planning to complete the transition to ultra-low sulfur diesel.

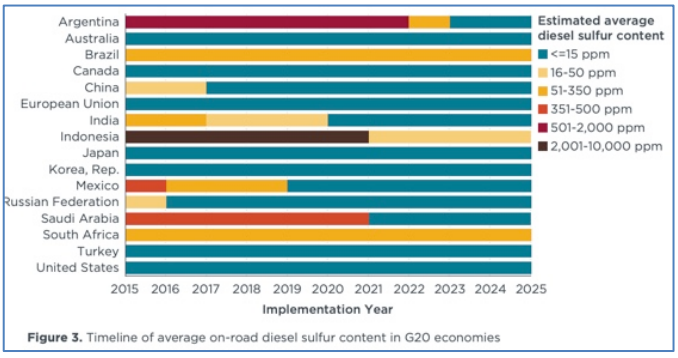


Figure 3. Timeline of average on-road diesel sulfur content in G20 economies

The authors estimate that currently adopted policies will reduce global on-road diesel black carbon emissions to 40% below 2010 levels by 2030. A 75% reduction in global on-road diesel black carbon emissions is achievable by 2030, but only if virtually all countries implement soot-free standards in the 2020 to 2025 timeframe. Adhering to this timeline could

avoid roughly $1 trillion (U.S.) in cumulative societal costs over the next decade.

The chart below shows the adoption of DPF in new vehicle sales according to region.

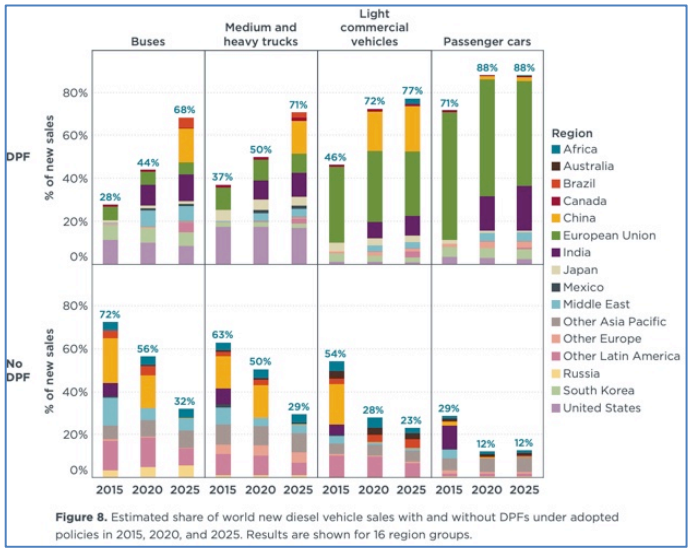


Figure 8. Estimated share of world new diesel vehicle sales with and without DPFs under adopted policies in 2015, 2020, and 2025. Results are shown for 16 region groups.

The ICCT report can be found at theicct.org/sites/default/files/publications/Global_progress_sootfree_diesel_2019_20190920.pdf.

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FORTHCOMING CONFERENCES

28th Aachen Colloquium Automobile and Engine Technology

7-9 October 2019, Aachen, Germany
www.aachener-kolloquium.de
The congress provides a wide range of technical presentations addressing current challenges of the vehicle and engine industry.

European Transport Conference

9-11 October 2019, Dublin, Ireland
www.aetransport.org
The conference attracts transport practitioners and researchers from all over Europe where they can find in-depth presentations on policy issues, best practice and research findings across the broad spectrum of transport.

7th Automotive IQ Conference on Real-Driving Emissions 2019

15-17 October 2019, Berlin, Germany
www.automotive-iq.com/events-real-driving-emissions

13th Conference on Gaseous Fuel Powered Vehicles

22-23 October 2019, Stuttgart, Germany
fkfs-veranstaltungen.de/3/conference-on-gaseous-fuel-powered-vehicles

3rd International FEV Conference Zero CO_2 Mobility

7-8 November 2019, Aachen, Germany
www.fev.com/coming-up/fev-conferences/fev-conference-zero-co2-mobility/introduction.html

Integer Emissions Summit USA

12-13 November 2019, Indianapolis, USA
www.integer-research.com/conferences/ies-usa-2019/

12th International ECMA Conference & Exhibition 2019 on Cleaner IC Engines for Sustainable Environment with Innovative Emission Control Technologies

14-15 November 2019, Pune, India
www.ecmaindia.in/eventsdetails.aspx?mpgid=41&pgidtrail=42&Eventsid=21
The ECT 2019 conference will address implementation of Bharat Stage VI emission norms and will look beyond, to forthcoming regulations such as RDE and World Harmonized Test procedures which will ensure that vehicles that come on the road in future are emissions-compliant in the true sense.

9th China International Diesel Engine Summit 2019

21-22 November 2019, Beijing, China
www.borscon.com/2019de9/cn/index.html
The 9th China International Diesel Engine Summit will provide an opportunity to discuss China' s energy-saving and emission-reduction policies and regulations for diesel engine, the latest technology progresses and future trends of new energy and alternative fuels, as well as innovative ideas in business modes.

POLIS Annual Conference

27-28 November 2019, Brussels, Belgium
www.polisnetwork.eu/2019conference
Europe's leading event on sustainable urban mobility in cities and regions

EU Clean Air Forum

28-29 November 2019, Bratislava, Slovakia
ec.europa.eu/info/events/eu-clean-air-forum-2019-nov-28_en
The European Commission is organising the 2nd Clean Air Forum in close collaboration with the Ministry of Environment of the Slovak Republic. It will focus on three themes: air quality and energy; air quality and agriculture; and clean air funding mechanisms.

Internal Combustion Engines and Powertrain Systems for Future Transport

11-12 December 2019, West Midlands, UK
events.imeche.org/ViewEvent?code=CON6849
The 2019 conference will provide a forum for IC engine, fuels and powertrain experts to look closely at developments in powertrain technology required to meet the demands of the low carbon economy

SAE World Congress Experience (WCX)

21-23 April 2020, Detroit, USA
www.sae.org/attend/wcx

41st International Vienna Motor Symposium

22-24 April 2020, Vienna, Austria
wiener-motorensymposium.at/en

TRA2020

27-30 April 2020, Helsinki, Finland
traconference.eu
TRA, The Transport Research Arena is the biggest European Research and Technology Conference on transport and mobility. In 2020 TRA is themed "Rethinking transport - towards clean and inclusive mobility" and brings together the experts from around the world to discuss the newest innovations and the future of mobility and transport.

SIA Powertrain & Energy

3-4 June 2020, Rouen, France
www.sia.fr/evenements/193-sia-powertrain-energy-rouen-2020
Deadline for abstract: 4 November 2019

SAE Powertrains, Fuels and Lubricants

22-24 September 2020, Krakow, Poland
www.sae.org/pfl
Call for abstracts opens in August 2019; deadline for abstract: 18 February 2020

SAE Heavy-Duty Diesel Emissions Control Symposium

13-14 October 2020, Gothenburg, Sweden