JULY 2020

NEWSLETTER

International Regulatory Developments

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EUROPE

AECC Position Paper on Euro 7/VII Emission Standards

On 9 July 2020, AECC published its position paper on Euro 7/VII emission standards.

The paper welcomes the European Commission's initiative to prepare the next step in the emission standards for road vehicles and acknowledges that a new era for vehicle emissions control started with the introduction of RDE and PEMS testing within Euro 6/VI legislation. It goes on to say that there remain areas where improved emission standards are required.

As predictions show the internal combustion engine (ICE) will be included in the majority of the powertrain mix in the medium term, Euro 7/VII represents an opportunity to further improve the emissions performance of these powertrains, so they remain a part of the solution to improve the air quality in our cities.

AECC proposes three overarching principles for Euro 7/VII to improve European air quality. These are: further focus on real-world emissions; fuel- and technology-neutrality; and legislation according to a 'total system approach' using a 'whole vehicle' basis.

The paper has been uploaded to the AGVES database as the AECC contribution to the Euro 7/VII discussion. It is available to read at www.aecc.eu/wp-content/uploads/2020/07/200709-AECC-position-on-Euro-7.pdf.

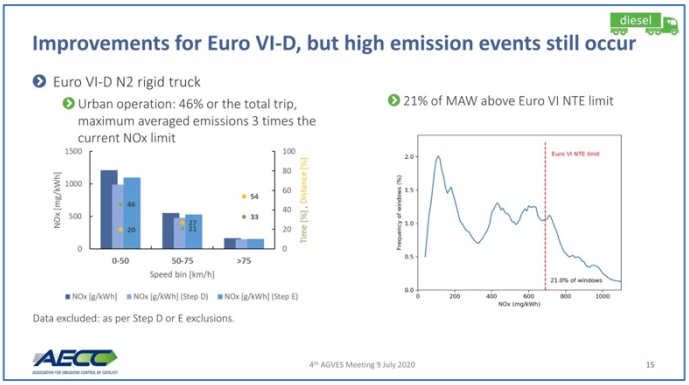
Meeting of European Commission Advisory Group on Vehicle Emission Standards

On 9 July 2020, the European Commission's Advisory Group on Vehicle Emission Standards (AGVES) held its fourth meeting, conducted in a virtual setup and chaired by Dr Dilara from the EC's DG Growth. The group is considering the standards to be introduced for Euro 7/VII.

In addition to a presentation by AECC, other stakeholders presented including from Manufacturers of Emission Controls Association (MECA) and the European Automobile Manufacturers' Association (ACEA).

AECC presented the project findings and key results on its Euro VI heavy-duty vehicle real-world emissions programmes as well as a brief outline of the newly published AECC Euro 7/VII position paper (see above).

Data presented by AECC showed that all heavy-duty vehicles analysed were compliant to their relevant type-approval emission level, but that high emission events are still occurring, particularly at speeds below 50 km/h. AECC showed, Euro VI Step D and Step E post-processing boundary conditions still exclude critical data.



AECC stressed that the results show there is scope to further focus on real-world emissions in Euro VII to address remaining emission events, and that technologies are available today to effectively control real-world emissions.

MECA presented on technologies for meeting future heavy-duty emission standards from a US perspective. The ACEA presentation showed the framework and assumptions of an air quality study AERIS will conduct on its behalf. The report is expected in September 2020.

The CLOVE consortium presented initial findings from the stakeholder survey about the evaluation of Euro 6/VI regulation, which is looking back. The Commission introduced the elements of the inception impact assessment, which will look forward.

The Commission announced an extra AGVES meeting that will be organised on 27 October 2020.

The AECC presentation to AGVES is available at www.aecc.eu/wp-content/uploads/2020/07/200709-AECC-presentation-AGVES.pdf.

New AECC Article on Role of Modern ICE Vehicles in improving Air Quality published

On 28 July 2020, AECC published its latest article on the Diesel Information Hub. This emphasises the role that modern internal combustion engine (ICE) cars can play in helping to improve air quality in the coming years.

The article explains how emissions from cars certified as Euro 6d-TEMP or 6d are already meeting real-world limits and how future Euro 7 limits are likely to reduce pollutant emissions even further.

In combination with more sustainable, alternative and renewable low-carbon fuels, these vehicles, as well as older ones, will also be able to reduce greenhouse gas emissions.

The article concludes by saying that countries looking to end the sale of new ICE vehicles should instead encourage faster fleet renewal, supporting all technology choices to guarantee an affordable option for all potential car buyers.

The article is on the Diesel Information Hub at dieselinformation.aecc.eu/the-modern-internal-combustion-engine-vehicles-solution-air-quality.

ENVI Committee voted on its Report for RDE Amendments

On 13 and 14 July 2020, the Environment (ENVI) Committee of the European Parliament voted on the report on the European Commission's proposal to amend the current EC Regulation on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6).

In its proposal, the Commission had advocated the re-instatement of the conformity factors (CFs) which were annulled in a judgement of the General Court. Amendments were negotiated including an agreement on a lowered value for the conformity factor and its gradual lowering through annual downward revisions, based on assessments by the EC's Joint Research Centre.

The ENVI committee agreed to include one amendment to cease the use of the CF by 30 September 2022, with annual downward revisions prior to that date. Another amendment was introduced to mandate the European Commission to adopt no later than 1 June 2021 delegated acts to reflect real driving emissions under normal conditions of use, including temperature and boundary conditions, lowering the zero-response drift and addressing hazardous spikes in particles resulting from filter cleaning.

ENVI also included some "markers" for Post-Euro 6 regulation, stating that "It is important to emphasise that while this proposal deals with the conformity factor, the issue of the emission limit standards is to be dealt with in the context of the forthcoming post-Euro 6 proposal…It is essential that the Commission present, where appropriate, a legislative proposal … at the latest by June 2021, as announced in its communication of 11 December 2019 on The European Green Deal…No conformity factors should be used in the implementation of the post-Euro 6 standards."

The report will need to win the backing of the plenary in September before trilogue negotiations can start with the European Council and the European Commission.

The amendments voted on by ENVI can be found at www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/ENVI/AM/2020/07-14/1197619EN.pdf

and compromise amendments at www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMMITTEES/ENVI/DV/2020/07-14/1198956EN.pdf.

The original European Commission proposal is at www.europarl.europa.eu/meetdocs/2014_2019/plmrep/COMM/COM/2020/07-14/COM_COM20190208_EN.pdf.

Agreement on European Recovery Plan

On 21 July 2020, EU leaders agreed on a comprehensive package of €1 824.3 billion which combines the multiannual financial framework (MFF) and the recovery plan, Next Generation EU (NGEU). The package is intended to help the EU rebuild after the COVID-19 pandemic and will support investment in the green and digital transitions.

Climate action will be mainstreamed in policies and programmes financed under the MFF and NGEU. An overall climate target of 30% will apply to the total amount of expenditure from the MFF and NGEU and be reflected in appropriate targets in sectoral legislation. They shall comply with the objective of EU climate neutrality by 2050 and contribute to achieving the Union's new 2030 climate targets, which will be updated by the end of the year. As a general principle, all EU expenditure should be consistent with Paris Agreement objectives and the "do no harm" principle of the European Green Deal.

The full conclusions of the European Council, which will be negotiated through the co-decision process with the European Parliament, are at www.consilium.europa.eu/media/45109/210720-euco-final-conclusions-en.pdf.

Regulation on Verification and Correction of HD CO_2 Emissions Data

On 22 July 2020, Commission Implementing Regulation (EU) 2020/1079 was published in the Official Journal of the European Union. This relates to the verification and correction of data referred to in Regulation (EU) 2018/956 on the monitoring and reporting of CO_2 emissions from and fuel consumption of new heavy-duty vehicles.

The regulation states that, following the reporting of the data by manufacturers in accordance with Article 5(1) of Regulation (EU) 2018/956, the Commission shall verify the quality of the data of a number of heavy-duty vehicles of each manufacturer registered in the reporting period concerned. For the reporting period of the year 2019, the Commission shall only verify the quality of the data of heavy-duty vehicles that have been registered as from 1 January 2020.

It also says that the Commission shall select the vehicles randomly. The number of selected heavy-duty vehicles shall be between 2 % and 10 % of the number of heavy-duty vehicles of each manufacturer that have been registered in the reporting period concerned.

Manufacturers are then required to supply vehicle identification numbers along with the records file and type-approval certificate. The Commission will then crosscheck and confirm the accuracy of the data or notify discrepancies, following which the manufacturer will be required to publish any corrections.

The regulation will enter into force twenty days after its publication in the Official Journal and can be found at eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2020.235.01.0001.01.ENG.

Committee of the Regions Support for Green Deal's Zero Pollution Ambition

On 2 July 2020, the European Committee of the Regions (CoR) confirmed its support for the European Commission's ambition for zero pollution set out in the European Green Deal communication.

The CoR says that fighting air pollution must be among the top priorities in the recovery plan. Accordingly, it encourages EU Member States to deliver and update their National Air Pollution Control Programmes as a matter of urgency.

CoR does not want the economic recovery to undermine the EU's zero pollution ambition. It suggests focusing more on emissions regulation to reduce emissions at source, ensuring that pollution is not simply shifted from one location to another.

The CoR's press release is at cor.europa.eu/en/news/Pages/Zero-pollution-EU-local-and-regional-governments-urge-to-tighten-emissions-at-source.aspx.

Consultation on Sustainable and Smart Mobility Strategy

On 1 July 2020, the European Commission launched a public consultation on its Sustainable and Smart Mobility Strategy Roadmap and the Strategy itself. This will be open for comments until 10 August 2020 and 23 September 2020 respectively.

The Commission is working on a comprehensive Strategy for a Sustainable and Smart Mobility. While taking into consideration the impact of the COVID-19 pandemic on the sector, the strategy intends to set a pathway for the sector towards the sustainable and digital transitions, building a resilient and crisis-proof transport system. It aims to deliver on the ambition set out in the European Green Deal and Europe Fit for the Digital Age Communications. In this context, the public consultation seeks to gather the views of citizens and stakeholders on the elements of the Strategy. The questionnaire also looks into how the current framework set out in 2011 White Paper has delivered up to now.

The consultation can be found at ec.europa.eu/info/law/have-your-say/initiatives/12438-Sustainable-and-Smart-Mobility-Strategy/public-consultation.

On 29 July, AECC submitted its response to the roadmap consultation. AECC commented that it fully supports the discussion and development of a European strategy for sustainable and smart mobility as announced in the Communication on the European Green Deal and is ready to contribute with technical and scientific data from AECC testing programmes on light and heavy-duty vehicles.

These AECC projects demonstrate the technical feasibility for reducing pollutant emissions using advanced emission control systems. The Internal Combustion Engine (ICE) and hybrid powertrains also have low greenhouse gas emissions when powered with sustainable and renewable fuels, showing that they are and will be contributing to a clean road transport.

The AECC response to the roadmap consultation is available to read at www.aecc.eu/wp-content/uploads/2020/07/200729-AECC-position-on-Sustainable-and-Smart-Mobility.pdf.

Consultation on Online Data Exchange of EU Vehicle Type-Approvals

On 14 July 2020, the European Commission launched a public consultation on online data exchange of EU vehicle type-approvals.

According to the draft, the Implementing Regulation would require the approval authority to inform the approval authorities of the other Member States and the Commission on the granting of EU type-approvals, on amendments, refusals and withdrawals through the European Type Approval Exchange System (ETAES). In addition, the measure details the procedure for the exchange of type-approval information.

The Implementing Regulation would clarify that the lists would need to be in a standardised searchable format and include the distinguishing number of the Member State that issued the EU type-approval certificate, the number of the EU type-approval certificate, the status of the EU type-approval and the name of the technical service responsible for carrying out the tests.

The consultation can be found at ec.europa.eu/12512-Online-data-exchange-of-EU-vehicle-type-approvals-format-of-electronic-documents-exchange.

Publication of European Commission Hydrogen Strategy

On 8 July 2020, Executive Vice-President for the European Green Deal Mr Frans Timmermans and Commissioner for Energy Mrs Kadri Simson launched the European Commission's Energy System Integration and Hydrogen strategies.

Mr Timmermans acknowledged that while targeting 40 gigawatts of renewable hydrogen electrolysers installed in Europe by 2030, there will be a transition period during which the EU will have to temporarily continue to support low-carbon hydrogen production.

The phased approach will mean that from 2020 to 2024, the EU will support the installation of at least six gigawatts of renewable hydrogen electrolysers in the EU, and the production of up to one million tonnes of renewable hydrogen. From 2025 to 2030, hydrogen needs to become an intrinsic part of the integrated energy system, with at least 40 gigawatts of renewable hydrogen electrolysers and the production of up to ten million tonnes of renewable hydrogen in the EU. From 2030 to 2050, renewable hydrogen technologies should reach maturity and be deployed at large scale across all hard-to-decarbonise sectors.

Mrs Simson said that both supply and demand for renewable hydrogen will have to be boosted, as clean hydrogen will "have a chance only if there is a market". She concluded by saying that continuing with the status quo would only see greenhouse gas emissions fall by 60% by 2050.

The Commissioners' speeches can be read at ec.europa.eu/commission/presscorner/detail/en/SP_20_1310

with a fact sheet available to download from ec.europa.eu/commission/presscorner/detail/en/FS_20_1296.

Final Report of DG-CLIMA Life Cycle Assessment Study

On 16 July 2020, the European Commission DG-CLIMA published the final report of the study titled "Determining the environmental impacts of conventional and alternatively fuelled vehicles through Life Cycle Assessment", conducted by a consortium under the lead of Ricardo Energy & Environment.

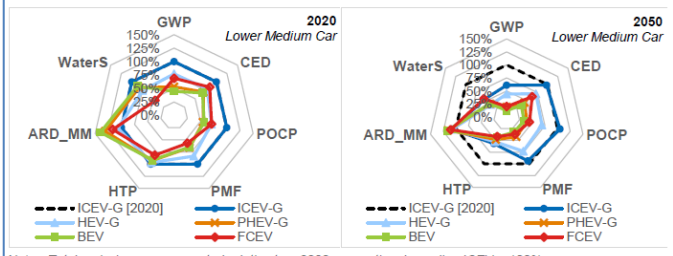
The report states that it is paramount to develop a better understanding of the environmental impacts of road vehicles over their entire lifecycle to help support decision-making on mitigating actions in the transport sector for several environmental issues. The report summarised a range of LCA studies available in the public domain, around 350 in total, which were found to be of varying focus, data quality, detail and coverage. The assessment generally confirmed conclusions from previous literature reviews on the relative contribution of different life cycle stages, and environmental hotspots for different vehicles, powertrain and energy carriers. Operational impacts dominate for conventionally fuelled vehicles, and manufacturing impacts are much more important for electric vehicles. Stakeholder consultation activities were also conducted with contributions provided by over 100 stakeholder organisations from academia, industry, policymakers and NGOs.

The study then developed a policymaker-oriented LCA methodology for light- and heavy-duty vehicles covering a selection of major powertrain types and fuel chains for the 2020 to 2050 timeframe. The LCA approach used covers a broad range of environmental impacts caused by the manufacturing, use and end-of-life phases of selected vehicle categories. The report says "The methodological choices made in this study are transparent and build on available literature and datasets. The choices made are based on fulfilling the specific objectives of the study and have been consistently applied across all of the different vehicle, fuel/electricity chain and powertrain types.

However, the breadth of the study did not allow for a consistent level of robustness and validation of all data. Especially for certain more novel energy and fuel chains validation was limited. The study explored the impacts of alternative methodological options for these through sensitivity analyses. Results for fuel chains were not included in the overall vehicle LCA analysis fuel blends where data or methodological choices were judged insufficiently robust."

The study developed results for a range of environmental impacts for 14 electricity chains, 60 fuel chains, and 65 generic vehicle/powertrain combinations across seven vehicle types. A separate stand-alone 'Results Viewer' module is available alongside the final report, providing a more detailed and comprehensive set of results. The report summary states "In broad terms, the analysis shows that electrified (xEV) powertrains have significantly lower environmental impacts across all vehicle types and most impact categories, with BEVs consistently performing better than all other powertrains. The higher impacts in some categories for xEVs (e.g. abiotic resource depletion, minerals and metals) are generally due to the use of particular materials (particularly copper and electronic components). The analysis also demonstrates that xEV benefits in terms of lower environmental impacts vary depending on regional and operational circumstances. The results also show the lower impacts of gas-fuelled vehicles compared to diesel or gasoline fuelled vehicles."

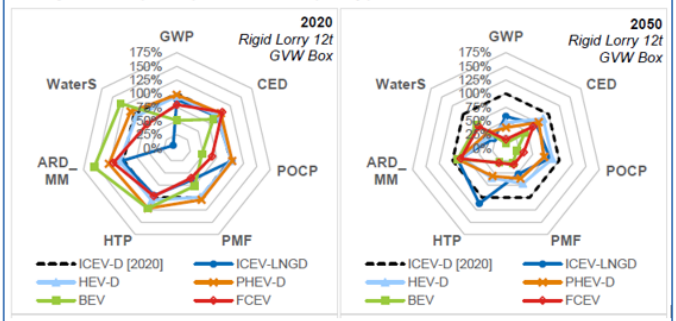
Figure ES4: Summary of the relative impacts for Lower Medium Cars for the most significant mid-point impacts for road transport, by powertrain for 2020 and 2050 (Tech1.5 Scenario)



Notes: Total emissions are presented relative to a 2020 conventional gasoline ICEV = 100%.
Powertrain types: G- = Gasoline; ICEV = conventional Internal Combustion Engine Vehicle; HEV = Hybrid Electric Vehicle; PHEV = Plug-in Hybrid Electric Vehicle; BEV = Battery Electric Vehicle; FCEV = Fuel Cell Electric Vehicle.
LCA impacts: GWP = Global Warming Potential, CED = Cumulative Energy Demand, POCP = Photochemical Ozone Creation Potential, PMF = Particulate Matter Formation, HTP = Human Toxicity Potential, ARD_MM = Abiotic Resource Depletion, minerals and metals, WaterS = Water Scarcity.

It has also provided several suggestions for policy-makers, based on these results, especially recommendations for future LCA research.

Figure ES6: Summary of the relative impacts for Rigid and Articulated Lorries, and Urban Buses for the most significant mid-point impacts for road transport, by powertrain for 2020 and 2050. Tech1.5 Scenario.



Notes: LNGD = LNG HPDI engine, using ~5% diesel; CNGL = CNG Lean-burn engine; HEV-D-ERS = Hybrid with pantograph enabling operation on overhead line electric road system (ERS). Other abbreviations as in Figure ES4.

The report concludes "The results of the analysis generally confirm the ongoing EU policy approach to move to a more circular economy and the initiatives aimed at developing a sustainable value chain for xEV batteries in Europe and driving down industrial emissions. There are also further opportunities to improve existing policy instruments, e.g. related to battery re-use or recycling, as well as finding ways to further incentivise improvements in the operational energy efficiency of powertrains. The analysis of

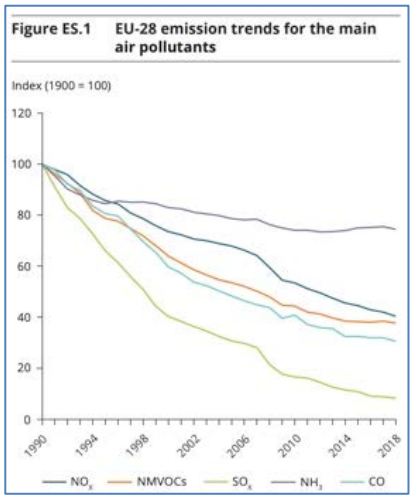
electricity production chains has provided a robust and comprehensive dataset for a number of regions covering a wide range of generation types. For fuel production chains, this study has highlighted numerous challenges for developing a consistent and harmonised methodology and dataset to evaluate all types of fuel chains through LCA. This has proved difficult in the context of complex methodological considerations and limited data availability for some newer fuel/process types. Future research should further explore the modelling of counterfactual scenarios and the building of robust datasets to evaluate them."

The full report is available at op.europa.eu/s/oaQS.

European Union Emission Inventory Report for 1990-2018

On 23 July 2020, the European Environment Agency (EEA) published the European Union Emission Inventory Report covering the period 1990-2018.

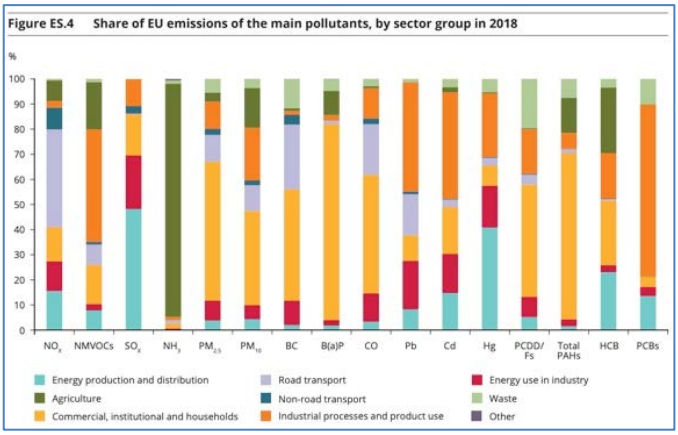
The report shows that emissions of the main air pollutants have fallen since 1990, albeit by differing amounts. NOx emissions have been reduced by 60%, with similar falls in carbon monoxide (69%) and non-methane volatile organic compounds (62%). The decline in NOx is partly attributed to progressively stricter vehicle emission limits, in spite of official tests failing to measure the actual level of emissions produced under real driving conditions.



Results for particulate matter (PM) have only been reported from 2000 onwards. These show that emissions of primary PM_{10}, $PM_{2.5}$ and black carbon have fallen by 29%, 32% and 46%, respectively over this period.

These falls are said to be mainly thanks to the introduction or improvement of abatement measures across the energy, road transport and industry sectors.

The report also shows the share of EU emissions of the main pollutants by sector in 2018. NOx emissions from road and non-road transport make up just under 50% of the total, whereas PM from the same sectors contributes 12-13% and carbon monoxide 22%.



EEA's report can be downloaded from www.eea.europa.eu/publications/european-union-emission-inventory-report-1990-2018.

European Court of Auditors Review of Better Regulation

On 30 July 2020, the European Court of Auditors (ECA) published its review of *Law-making in the European Union after almost 20 years of Better Regulation*.

The ECA says that "Better Regulation must remain at the heart of EU law-making, for the benefit of our citizens and businesses." It identifies a number of challenges, saying that EU policies and legislative initiatives should be sufficiently covered by good quality and timely data and evidence that support consultation and impact assessment before decisions are made, as well as monitoring during and evaluating the effects after the implementation of a policy.

It also highlights the challenges of further simplifying EU legislation and improving the transparency of the legislative process.

ECA states that "as achieving the goals of Better Regulation depends on effective cooperation between the Commission, the European Parliament and the Council, it is essential for the co-legislators to act on the commitments made in the 2016 interinstitutional agreement to promote transparent, evidence-based law-making."

The ECA press release about the review is at www.eca.europa.eu/Lists/ECADocuments/INRW20_02/INRW_better_regulation_EN.pdf.

Italian Automotive Incentive Package

On 3 July 2020, the Italian government is reported to have approved a package of incentives to encourage sales of fuel-efficient combustion engine cars as well as electric and hybrid vehicles.

The government will offer buyers of Euro 6 vehicles with a net price below €40 000 and CO_2 emissions of up to 110 g/km an incentive of €1 500 if they scrap cars that are 10 years or older. The total incentive will be €3,500 when including a further €2,000 to

be shouldered by dealers. The package passed by the Lower House, will now have to be approved by the Senate.

A report on the incentive package can be found at europe.autonews.com/automakers/italy-introduce-scrapping-program-boost-sales-after-coronavirus-hit
and the Italian government website for the scheme is at: ecobonus.mise.gov.it.

AECC Input to UK Consultation on End of New ICE Sales

On 31 July 2020, AECC provided input to the UK public consultation on ending the sale of new petrol, diesel and hybrid cars and vans. The UK government is proposing to bring forward the date from 2040 to 2035, or earlier if a faster transition appears feasible.

AECC points out that new vehicles with an internal combustion engine (ICE) have low pollutant emissions with state-of-the-art emission control technologies. They also have low greenhouse gas emissions when powered with sustainable and renewable fuels. AECC consequently believes these powertrains are part of the solution to achieve both air quality and climate goals. AECC supports fleet renewal incentives for all modern clean powertrain solutions.

The full document is available on the AECC website at www.aecc.eu/wp-content/uploads/2020/07/200730-AECC-input-end-of-ICE-sales-consultation-final.pdf.

UK Net Zero Transport Board

On 8 July 2020, the United Kingdom's Net Zero Transport Board met for the first time. The meetings are said to 'guarantee a truly collaborative and joined up approach to …transport decarbonisation'.

Those attending the Net Zero Transport Board include the Society of Motor Manufacturers and Traders, International Council on Clean Transportation, the UK100 Cities network, government agencies such as Innovate UK, along with NGOs, industry representatives and advisors on environmental, behavioural, science and policy aspects of the transition.

At the same time as the launch, the UK government announced a public consultation on the development of the transport decarbonisation plan.

More details of the group and consultation are at www.gov.uk/government/on-the-road-to-a-sustainable-future-net-zero-transport-board-paves-the-way-for-a-green-recovery.

NORTH AMERICA

Possible Delay to US EPA Cleaner Trucks Initiative

In the second half of July, reports claimed that the US EPA is expecting to delay issuing its Cleaner Trucks Initiative (CTI) proposal, possibly until 2021.

The likely delay is said to be in line with truck and engine manufacturers' calls to allow more time for industry and EPA's labs to re-open and provide meaningful data to inform the proposal development. EPA continues to lack access to its labs to complete the needed air quality modelling, cost analysis and demonstration testing that includes full useful life ageing out to 850 000 miles. All of this data will be scrutinised prior to and after the release of the CTI proposal.

A report on the likely delay is available at www.ttnews.com/articles/epas-national-nox-proposal-headed-another-delay.

US EPA Eases Enforcement for Diesel Engine Manufacturers

On 13 July 2020, the US EPA sent a letter to manufacturers of diesel engines used in heavy-duty vehicles and other equipment, saying that it is easing enforcement for diesel engine manufacturers that fail to meet Clean Air Act requirements due to the COVID-19 pandemic.

The letter states that "on a case-by-case basis, after notification by a manufacturer, EPA will assess the circumstances that may delay the manufacturer from meeting Clean Air Act requirements for certification and compliance." The guidance letter specifies that companies are still required to meet legally binding requirements as soon as they are able to do so.

The letter can be found at www.eenews.net/assets/2020/07/13/document_gw_01.pdf.

ASIA PACIFIC

ICCT Analysis of Potential Delay of Fuel Consumption Standards in India

On 13 July 2020, the International Council on Clean Transportation (ICCT) published an analysis of the potential impact of a one-year delay in implementation of corporate average fuel consumption (CAFC) standards for passenger vehicles. This has been suggested by Indian vehicle manufacturers as part of a COVID-19 recovery programme.

ICCT says that while the requirements set to take effect in 2022 require a further fuel consumption reduction of 13% from the standards in force in 2017-18, its own analysis shows that an annual reduction of just 2.55% is required over the next four years. It also states that manufacturers complied with the norms with a margin of 8% in 2018-19.

This has been achieved using technology such as gasoline direct injection, said to provide a fuel efficiency improvement of around 6%.

According to ICCT, a 10% penetration of mild hybrid technology could give an industry average benefit of 1%, and an electric vehicle (EV) with 1% market share can give an overall benefit of 2.25%. Put another way, a 4% penetration of EVs is sufficient to meet the 2022–23 CAFC standard without any improvement in internal combustion engine (ICE) vehicle efficiency.

Looking at the environmental impact of a one-year CAFC implementation delay, ICCT calculates additional CO_2 emissions of about 1.4 million tonnes.

The ICCT blog is available to read at theicct.org/blog/staff/atmanirbhar-bharat-and-covid-19-jul2020.

Possible Deferral of Indian BS TREM-IV Norms for Construction Equipment

On 23 June 2020, the Indian government was reported to have invited suggestions for deferral of the next stage of emissions standards for construction equipment, due to be applied from 1 October.

The Ministry of Road Transport and Highways (MoRTH) has issued this request as a result of the impacts of the COVID-19 pandemic and at the request of the agriculture ministry and construction equipment manufacturers. It has issued a draft notification for deferment of the emission standards to 1 October 2021.

A report on the proposal is available to read at auto.economictimes.indiatimes.com/news/amend-mv-rules-to-defer-bs-trem-iv-norms-for-construction-vehicles/76529050.

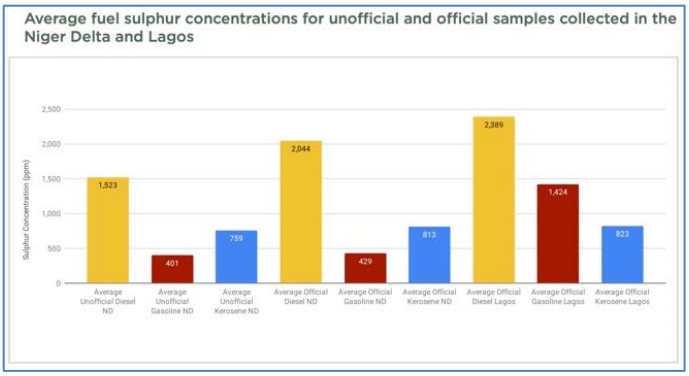
MIDDLE EAST & AFRICA

Analysis of Fuels in Niger Delta

In May 2020, the Stakeholder Democracy Network (SDN) published an analysis of official and unofficial petroleum products in the Niger Delta.

The report compares differences in the standards of, and emissions from, official fuels in licensed filling stations, and unofficial fuels produced by artisanal oil refineries. It says that the findings of this research are cause for serious concern, particularly the very high sulphur concentrations across unofficial and official fuel supplies in the Niger Delta. SDN says that the samples analysed suggest a low standard of fuel is on offer in the Niger Delta, likely leading to high levels of emissions, serious health impacts, and increased vehicle and generator maintenance costs to consumers.

The average official diesel sample contained 204 times more than European Union fuel sulphur standards and 43 times the level for gasoline. The average unofficial diesel sample contained 152 times more EU sulphur standards and 40 times the level for gasoline.



The report points out that levels recorded in official fuels are significantly above the maximum levels of sulphur that vehicle emission reduction technologies can function at. Therefore, even the latest vehicles are likely to be very high emitters of pollutants as a result of the fuel they are consuming. SDN concludes that this finding presents a challenge for policy makers, because without enforcement of regulations, consuming official fuel will continue contributing more to air pollution than unofficial fuel.

The full report can be found at www.stakeholderdemocracy.org/wp-content/uploads/2020/05/Dirty-fuel.-Report.-2020-DIGITAL.pdf.

GENERAL

Report on Decarbonisation of UK Long-Haul Road Freight at Minimum Cost

On 27 July 2020, the Centre for Sustainable Road Freight (CSRF) published a technical report titled *Decarbonising the UK's Long-Haul Road Freight at Minimum Economic Cost*.

The white paper makes the case for a UK nationwide rollout of an 'Electric Road System' through the 2030s. it states that overhead catenaries and compatible heavy goods vehicles are the most energy-efficient and cost-effective solution to fully decarbonise the UK's road freight network, and are essential if the UK is to achieve its carbon budgets through to net-zero greenhouse gas emissions by 2050.

The CSRF report suggests that hybrid vehicles combining catenary power with diesel, bio-gas or hydrogen fuel cells would be compatible with this approach, ensuring the necessary operational flexibility until the fleet is fully electrified.

CSRF says that catenary systems are proven technology that will help strengthen the UK economy and national energy security through reduced dependence on energy imports.

The report can be found at www.csrf.ac.uk/wp-content/uploads/2020/07/SRF-WP-UKEMS-v2.pdf.

RESEARCH SUMMARY

Effects of Emissions and Pollution

In vitro evaluation of the cytotoxicity, mutagenicity and DNA damage induced by particle matter and gaseous emissions from a medium-duty diesel vehicle under real driving conditions using palm oil biodiesel blends, Maria Botero, et al.; *Environmental Pollution* (October 2020), Vol. 265, Part A, 115034, doi: 10.1016/j.envpol.2020.115034.

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FORTHCOMING CONFERENCES

ONLINE 48th European Transport Conference

9-11 September 2020, Milan, Italy
aetransport.org

Future of Biofuels

22-23 September 2020, Copenhagen, Denmark (postponed from June)
fortesmedia.com/future-of-biofuels-2020

ONLINE SAE Powertrains, Fuels and Lubricants

22-24 September 2020, Krakow, Poland
www.sae.org/pfl

European Research & Innovation Days

22-24 September 2020, Online
ec.europa.eu/info/research-and-innovation/events/upcoming-events/european-research-and-innovation-days_en

Driving the Green Deal: how can biofuels help decarbonise EU transport?

24 September 2020, Brussels, Belgium
events.euractiv.com/event/info/driving-the-green-deal-how-can-biofuels-help-decarbonise-eu-transport

ONLINE FVV 2020 Autumn Conference

24-25 September 2020, Würzburg, Germany
www.fvv-net.de/en/events

Urban Mobility Days 2020

29 September – 2 October 2020, Online
www.eltis.org/in-brief/news/registration-now-open-urban-mobility-days-2020

ONLINE Decarbonisation of Heavy Transport and the Role of Hydrogen

1 October 2020, Brussels, Belgium
www.politico.eu/event/decarbonize-heavy-transport

ONLINE 29th Aachen Colloquium

5-7 October 2020, Aachen, Germany
www.aachener-kolloquium.de/en

POSTPONED IRU World Congress

19-21 October 2020, Berlin, Germany
www.iruworldcongress.com

Ricardo Motorcycle Conference 7.0

2 November 2020, Milan, Italy
i.emlfiles4.com/cmpdoc/9/8/9/9/1/1/files/65919_mcc-7.0_callforpapers_v3.pdf?dm_i=2KL1,1LHJG,372FEM,5EVQY,1

SIA Powertrain & Energy

3-4 November 2020, Rouen, France (postponed from June/September)
www.sia.fr/evenements/193-sia-powertrain-energy-rouen-2020

5th Green & Sustainable Chemistry Conference

8-11 November 2020, Dresden, Germany
www.elsevier.com/events/conferences/green-and-sustainable-chemistry-conference

4th International FEV Conference: Zero CO_2 Mobility

10-11 November 2020, Aachen, Germany
www.fev.com/en/coming-up/fev-conferences/fev-conference-zero-co2-mobility

2020 Annual POLIS Conference

2-3 December 2020
www.polisnetwork.eu/2020-annual-polis-conference
The Polis Annual Conference provides an opportunity for cities and regions to showcase their transport achievement to large audience of mobility experts, practitioners and decision makers.

11th VERT Forum

25 March 2021, Dübendorf, Switzerland (postponed from March 2020)
www.vert-certification.eu

International Transport and Air Pollution Conference

30-31 March 2021, Graz, Austria (postponed from September 2020)
www.tapconference.org
The main topics of the 24th TAP Conference include energy consumption and GHG emissions from vehicles, open issues for pollutant emissions, such as tampering, retrofits of software and hardware and non-regulated pollutants, emissions from non-road mobile machinery and other transport modes and measurements and simulation of traffic related environmental impacts and air quality.

9th AVL Large Engines Techdays

21-22 April 2021, Graz, Austria
www.avl.com/large-engines-techdays

42nd International Vienna Motor Symposium

28-30 April 2021, Vienna, Austria
wiener-motorensymposium.at/en/

8th International MinNOx Conference

16-17 June 2021, Berlin, Germany (postponed from September 2020)
www.iav.com/en/events/minnox

SAE Heavy-Duty Diesel Emissions Control Symposium

5-6 October 2021, Gothenburg, Sweden (postponed from October 2020)
www.sae.org/attend/heavy-duty-diesel-emissions-control-symposium