

NEWSLETTER

International Regulatory Developments

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AECC Open Letter on Euro 7 Ambition

On 26 October, AECC sent an open letter to European Commissioner for Internal Market, Executive Vice-Presidents Vestager and Timmermans, Commissioner for Environment and the President of the European Commission, calling for an ambitious Euro 7 proposal.

The letter urges the European Commission to adopt an ambitious Euro 7 proposal linked closely to scientific findings in order to promote innovation, enable energy transition and preserve the competitiveness of the European industry. AECC's letter states that its demonstrator vehicles show technical feasibility to achieve ultra-low pollutant emissions on light- and heavy-duty vehicles with already available technologies, in an economically viable manner.

AECC noted that at least the medium ambition level for limits and test conditions is needed in order to promote further innovation and cleaner exhausts.

The AECC open letter is available from aecc.eu/wp-content/uploads/2022/10/221026-AECC-letter-on-Euro-7-ambition-signed.pdf.

AECC Statement on the Revision of EU Ambient Air Quality Legislation

On 31 October 2022, AECC published a statement following the College of Commissioners' consideration of the Revision of EU Ambient Air Quality Legislation on 26 October.

The statement highlights that the proposed revision of the Ambient Air Quality Directives will set interim 2030 EU air quality standards, aligned more closely with World Health Organization guidelines, while putting the EU on a trajectory to achieve zero pollution for air at the latest by 2050. It mentions that, as stated in the Air Quality proposal, these new rules will need to be supported by ambitious Euro 7 emission standards, and emphasised that AECC is eagerly awaiting an ambitious proposal from the Commission outlining the next stage of light- and heavy-duty vehicles' emissions legislation.

The statement can be accessed at aecc.eu/wp-content/uploads/2022/10/221031-AECC-statement-on-EU-Air-Quality-rules-final.pdf.

EUROPE

Further Delays to Euro 7 Proposal

On 4 October 2022, the schedule for the next College of Commissioners meetings was updated and the Euro 7 proposal 'Development of post-Euro 6/VI emission standards for cars, vans, lorries and buses' was included in the meeting to be held on 26 October. The Euro 7 dossier was then listed within the 'zero pollution package' together with the Revision of EU ambient air quality legislation.

On 11 October, the schedule for the next College of Commissioners meetings was further updated and the Euro 7 proposal is now included in the meeting to be held on 9 November 2022.

It is, however, understood the interservice consultation on the Euro 7 proposal has been launched and prospective dates for the Advisory Group on Vehicle Emission Standards (AGVES) meetings to discuss the implementing regulations have been released.

The latest College meetings schedule can be found at [ec.europa.eu/transparency/documents-register/detail?ref=SEC\(2022\)2434&lang=en](https://ec.europa.eu/transparency/documents-register/detail?ref=SEC(2022)2434&lang=en).

Withdrawal of Amendment to RDE Conformity Factors

On 18 October 2022, the European Commission published its work programme for 2023.

Amongst other measures, this stated that the Regulation amending Regulation 715/2007 on type approval of motor vehicles with respect to emissions from light passenger and commercial vehicles (Euro 5 and Euro 6) and on access to vehicle repair and maintenance information, will be withdrawn.

Annex IV of the document says that the Regulation is obsolete following the judgement of the Court of Justice C-177/19, C-178/19 and C-179/19 regarding setting of the not-to-exceed (NTE) values for emissions of oxides of nitrogen during the real driving emission (RDE) tests.

The Commission intends to withdraw the Regulation by the end of June 2023.

Regarding upcoming legislation, the Commission states that in the coming months it will adopt "ambitious packages of further climate and environment measures including with regards to transport emissions", as well as proposals to improve ambient air quality.

The 2023 Work Programme can be found at ec.europa.eu/info/sites/default/files/com_2022_548_1_annexe_en.pdf.

Agreement on CO₂ Emission Standards for Cars and Vans

During the latest round of dialogues on 27 October 2022, the European Parliament and the Council announced that a provisional agreement was reached on the proposal revising EU rules on CO₂ emission performance standards for new cars and vans.

According to the institutions' press releases, the co-legislators agreed to a 55% CO₂ emission reduction target for new cars and 50% for new vans by 2030 compared to 2021 levels.

The agreement includes wording on CO₂ neutral fuels whereby following consultation with stakeholders, the

Commission will make a proposal for registering vehicles running exclusively on CO₂-neutral fuels after 2035 in conformity with EU law, outside the scope of the fleet standards, and in conformity with the EU's climate neutrality objective.

A review has been agreed for 2026 where the Commission will thoroughly assess the progress made towards achieving the 100% emission reduction targets and the need to review these targets, taking into account technological developments, including with regard to plug-in hybrid technologies and the importance of a viable and socially equitable transition towards zero emissions.

By 2025, the Commission will develop a common EU methodology for assessing the full life cycle of CO₂ emissions of cars and vans placed on the EU market, as well as for the fuels and energy consumed by these vehicles. Based on this methodology, manufacturers may, on a voluntary basis, report to the Commission on the life cycle emissions of the new vehicles they place on the market.

The European Parliament's ENVI Committee should confirm the provisional agreement in the coming weeks. Once the European Parliament has adopted its position at first reading, the Council is expected to adopt the Parliament's position and the Regulation would be formally adopted.

The EP's press release can be found at europarl.europa.eu/news/en/deal-confirms-zero-emissions-target-for-new-cars-and-vans-in-2035, the Council's press release at consilium.europa.eu/en/press/first-fit-for-55-proposal-agreed-the-eu-strengthens-targets-for-co2-emissions-for-new-cars-and-vans and the European Commission press release at ec.europa.eu/commission/presscorner/detail/en/ip_22_6462.

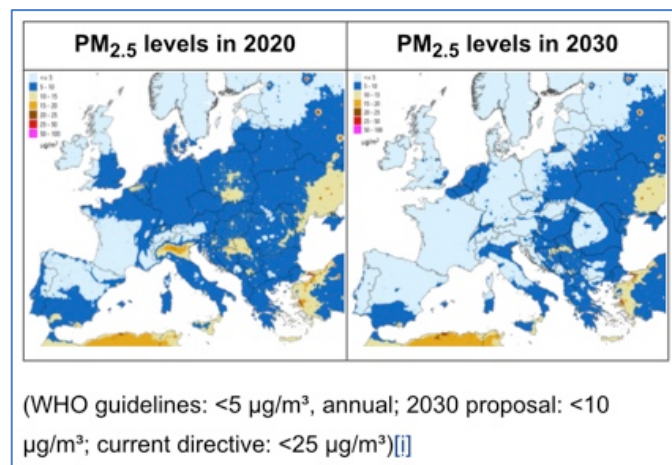
Commission Proposal for Updated Clean Air Rules

On 26 October 2022, the European Commission proposed stronger rules on ambient air, surface and groundwater pollutants, and treatment of urban wastewater.

The EC says that across air and water, all of the new rules provide clear return on investment thanks to benefits in health, energy savings, food production, industry, and biodiversity. Learning the lessons from current laws, the Commission says it proposes to both tighten allowed levels of pollutants and to improve implementation to ensure pollution reduction goals are more often reached in practice.

The proposed revision of the Ambient Air Quality Directives will set interim 2030 EU air quality standards, aligned more closely with World Health Organization guidelines, while putting the EU on a trajectory to achieve zero pollution for air at the latest by 2050, in synergy with climate-neutrality efforts. To this end, the Commission proposes a regular review of the air quality standards to reassess them in line with latest scientific evidence as well as societal and

technological developments. The annual limit value for the main pollutant - fine particulate matter (PM_{2.5}) - is proposed to be cut by more than half, from 25 µg/m³ to 10 µg/m³.



The equivalent number for nitrogen dioxide (NO₂) is 20 µg/m³, down from 40 µg/m³.

The revision will ensure that people suffering health damages from air pollution have the right to be compensated in the case of a violation of EU air quality rules. They will also have the right to be represented by non-governmental organisation through collective actions for damage compensation. The proposal will also bring more clarity on access to justice, effective penalties, and better public information on air quality. New legislation will support local authorities by strengthening the provisions on air quality monitoring, modelling, and improved air quality plans.

The Commission press release can be found at ec.europa.eu/commission/presscorner/detail/en/ip_22_6278. The full proposal is available to download from environment.ec.europa.eu/publications/revision-eu-ambient-air-quality-legislation_en.

TRAN Adoption of Draft Mandate on AFIR Deployment

On 3 October 2022, the Transport and Tourism (TRAN) Committee of the European Parliament adopted a draft negotiating mandate on the deployment of alternative fuels infrastructure by 36 votes to 2 and 6 abstentions.

The mandate aims to spur the deployment of recharging or alternative refuelling stations (such as electric or hydrogen) for cars, trucks, trains and planes and support the uptake of sustainable vehicles.

TRAN MEPs agreed to set minimum mandatory national targets for the deployment of alternative fuels infrastructure and to ask EU countries to present their plan by 2024 on how to achieve it.

According to the adopted text, electric charging pools for cars would have to be deployed at least every 60 km along main

EU roads by 2026. For trucks and buses, the same requirements would apply by 2026, but only on core TEN-T networks. MEPs also want charging stations for trucks in a safe and secure parking place to be deployed more quickly: two charging stations from 2028 instead of one from 2031 as proposed by the Commission. In all cases, some deployment exemptions would apply to outermost regions, islands and roads with very little traffic.

The TRAN committee also suggests setting up more hydrogen refuelling stations along main EU roads compared to the Commission proposal (every 100 km as opposed to every 150 km) and to do it faster (by 2028 as opposed to by 2031).

Users of alternative fuel vehicles should be able to pay easily, the price should be displayed per kWh or per kg, be affordable, comparable and accessible to all vehicle brands. MEPs also want an EU access point for alternative fuels data to be set up by 2027 to provide information on the availability, waiting times and prices at different stations.

Once Parliament as a whole has approved this draft negotiating position at the October II plenary session, MEPs will be ready to start talks with EU governments on the final shape of the legislation.

The TRAN committee press release can be found at europarl.europa.eu/news/en/press-room/20221003IPR42118/fit-for-55-transport-meps-want-car-recharging-stations-every-60-km

and the adopted report can be found at www.europarl.europa.eu/doceo/document/A-9-2022-0234_EN.pdf.

First Trilogue of the Renewable Energy Directive

On 6 October 2022, the first trilogue negotiation on the proposal to amend the Renewable Energy Directive was held between the European Parliament, European Council and European Commission.

In this first trilogue, it is expected the European Parliament and the Council present their negotiating positions and to define the dates for the technical and political trilogue meetings.

The European Council general approach can be accessed at data.consilium.europa.eu/doc/document/ST-10488-2022-INIT/en/pdf.

The European Parliament position report adopted can be accessed at europarl.europa.eu/doceo/document/TA-9-2022-0317_EN.pdf.

ITRE Committee Update on First Trilogue on RED Amendment

On 13 October 2022, the Rapporteur on the amendment to the Renewable Energy Directive, MEP Markus Pieper, briefed MEPs on the Committee on Industry, Technology

and Research (ITRE) on the outcome of the initial inter-institutional (trilogue) negotiations.

The Rapporteur pointed out that introductory negotiations between the European Parliament and the Council served to outline their respective positions on the EU's overall renewable energy target for 2030, as well as sub-targets concerning the share of renewable energy in certain sectors.

It was also noted that further aspects of the proposal were addressed during the first trilogue, including the role of hydrogen, the use of biomass to produce renewable energy, the issuance of guarantees of origin, and mandatory joint projects between Member States for the production of renewable energy.

Moreover, the Rapporteur underlined the willingness expressed by the Commission to amend, in light of the final outcome of negotiations on the Renewable Energy Directive revision, its draft Delegated Regulation setting out rules for the production of renewable transport fuels of non-biological origin. In particular, he mentioned that the Commission is ready to consider any agreement reached on the definition of 'renewable hydrogen'.

Further inter-institutional negotiations on the proposal are expected to take place over the coming weeks, although a timeline has not yet been confirmed.

The ITRE Committee webstream can be found at multimedia.europarl.europa.eu/en/webstreaming/itre-committee-meeting_20221013-0900-COMMITTEE-ITRE.

Parliament Vote on Deployment of Alternative Fuels Infrastructure

On 19 October 2022, the European Parliament adopted its position on draft EU rules aimed at spurring the deployment of recharging and alternative refuelling stations (such as electric or hydrogen) for cars, trucks, trains and planes and supporting the uptake of sustainable vehicles. The new rules are part of the 'Fit for 55 in 2030' package.

MEPs agreed to set minimum mandatory national targets for the deployment of alternative fuels infrastructure. Member states will have to present their plan by 2024 on how to achieve it. According to the adopted text, by 2026 there should be at least one electric charging pool for cars every 60 km along main EU roads. The same requirement would apply for trucks and buses, but only on core TEN-T networks and with more powerful stations. MEPs also suggest setting up more hydrogen refuelling stations along main EU roads (every 100 km as opposed to every 150 km, as proposed by the Commission) and to do it faster (by 2028 instead of by 2031).

The negotiating mandate on the deployment of alternative fuels infrastructure was adopted by 485 votes to 65 and 80 abstentions and on sustainable maritime fuels by 451 votes

to 137 and 54 abstentions. Parliament is now ready to start negotiations with the European Council.

The European Parliament press release is at europarl.europa.eu/news/en/press-room/car-recharging-stations-should-be-available-every-60-km-say-meps.

Think Tank Briefing on EU Ambient Air Quality Directives

On 19 October 2022, the European Parliament's Think Tank published a briefing on the revision of the EU's ambient air quality directives.

It says that although emissions have been falling for the past two decades, exceedances for certain harmful pollutants are still widespread and persistent. A 2019 Commission fitness check of the EU Ambient Air Quality Directives (AAQDs), which are central to EU air quality policy, shows that the two directives "have not ensured that sufficient action is taken throughout the EU to meet air quality standards and keep exceedances as short as possible, resulting in a mixed picture". The identified deficiencies require a revision of the AAQDs, which also need to be adapted to the priorities of the European Green Deal and in particular to its zero-pollution pillar. The European Parliament, which scrutinised implementation of the AAQDs in 2021, will be a co-legislator in this revision. This briefing presents findings on the implementation of the directives and thus aims to inform parliamentary decision-making.

It also highlights the role of the various stakeholders. As well as the European Commission, Parliament and Council, this includes EU advisory bodies (European Economic and Social Committee, European Committee of the Regions), the European Court of Auditors and individual MEPs.

The briefing document is available to read at [europarl.europa.eu/RegData/etudes/BRIE/2022/734679/EPRS_BRI\(2022\)734679_EN.pdf](https://europarl.europa.eu/RegData/etudes/BRIE/2022/734679/EPRS_BRI(2022)734679_EN.pdf).

EU Transport in Figures Statistical Pocketbook

On 26 September 2022, the Directorate-General for Mobility and Transport published the 'EU Transport in Figures' statistical pocketbook.

This publication provides an overview of the most recent and most pertinent annual transport-related statistics in Europe. It covers the European Union and its 27 Member States (EU-27) and, as far as possible, the current EU candidate countries, the EFTA countries and UK.

The content of this pocketbook is based on a range of sources including Eurostat, international organisations and associations, national statistics and, where no data were available, own estimates.

The pocketbook can be downloaded from

op.europa.eu/en/publication-detail/-/publication/f656ef8e-3e0e-11ed-92ed-01aa75ed71a1.

Eurobarometer Survey on EU Citizens' View of Air Quality

On 24 October 2022, the European Commission published a Eurobarometer survey on the attitudes of European Union citizens to air quality.

It concludes that Europeans are worried about the effect of air pollution on health and the environment. Most also think that industry, public authorities and employers need to do more to improve air quality. Respondents clearly favour an international or European approach to improving air quality and a large majority of the respondents who have heard of EU air quality standards say that they should be strengthened.

Most Europeans think that health conditions such as respiratory diseases (89%), asthma (88%), and cardiovascular diseases are serious problems in their countries resulting from air pollution. Nearly half of the respondents hold the view that that air quality has deteriorated in the last ten years (47%). This percentage is however an 11-point drop since 2019.

A large majority of Europeans think air pollution should be addressed at the international level (65%) followed by the European and the national level (both 42%), and finally the regional or local level (32%). A significant proportion of the respondents also believe that actions should be carried out at all levels simultaneously (19%).

The Special Eurobarometer survey was conducted between 21 March and 20 April 2022. Some 26 509 respondents from different social and demographic groups were interviewed in their mother tongue, on behalf of the European Commission.

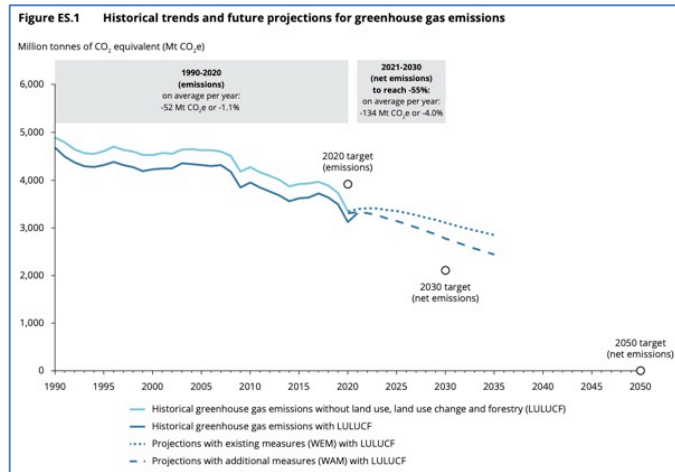
The European Commission's press release is at ec.europa.eu/commission/presscorner/detail/en/ip_22_6307.

EEA Report on GHG Trends and Projections in Europe

On 26 October 2022, the European Environment Agency (EEA) published its 'Trends and Projections in Europe 2022' report. Its headline is that following a long period of falling greenhouse gas emissions in Europe, economic recovery from the COVID-19 lockdowns has led to an increase in emissions, particularly in the transport, industry and energy supply sectors.

EEA says that with a looming energy crisis and in particular a high gas price, the energy supply sector saw a partial switch to more carbon-intensive energy fuels, while the strong growth in renewable energy observed in recent years lost pace in 2021. To counter this development, it is crucial that energy infrastructure decisions today take into account the

climate neutrality target of the future to avoid carbon lock-in effects.



Looking specifically at transport, the report says that the most notable changes occurred in transport, with an estimated increase of 8% compared with 2020, but a decrease of 7% compared with 2019. It suggests that falling prices of electric vehicles and changes in commuting and travelling patterns after the COVID-19 pandemic may be determining factors in this sector.

Assisted by a lower level of total energy consumption, EEA says the target of a 10% share of renewable energy sources in the transport sector was only just achieved in 2020.

The report says one of the greatest challenges for reducing emissions in the sectors covered by Effort Sharing legislation has been the transport sector. This is also reflected by an increase in final energy consumption in transport of 9% between 2005 and 2020. The evolution of GHG emissions and final energy consumption in the transport sector is strongly correlated with the economic context. Much of the observed decrease of 14% in transport emissions between 2019 and 2020 can be attributed to the COVID-19 crisis, as restrictions put in place had wide impacts on people's and goods' mobility patterns. Estimates for 2021 indicate that transport emissions increased by 8% compared with 2020, showing a partial rebound of mobility.

Looking forward, EEA says that Member States project that existing policies and measures will keep transport-related emissions at about the level of 2020 by 2030. Emission reductions are projected to occur only if policies and measures additional to those currently in place are implemented. With the implementation of these additional policies and measures, emissions from transport could fall to 26% below 2005 levels by 2030, which would be 19% lower than emission estimates for 2021. EU regulations on CO2 standards for cars and vans and heavy-duty vehicles and the introduction of carbon pricing could be important for achieving more substantial emission reductions. In addition, the falling prices of electric vehicles and the changes in

commuting and travelling patterns caused by COVID-19 could also be determining factors. The result of these measures should be a clear downward trend in emissions from the transport sector to achieve the 90% cut in transport related GHG emissions by 2050, as outlined in the European Green Deal.

The EEA report can be downloaded from eea.europa.eu/highlights/trends-and-projections-limited-rebound?utm_source=EEASubscriptions.

Legal Action by Belgian Citizens on Air Quality in Regions

On 24 October 2022, ClientEarth announced that nine residents across Belgium are taking legal action against their regional governments, demanding that they uphold their right to breathe clean and healthy air.

The nine claimants – most of whom suffer from respiratory health issues – together with environmental lawyers at ClientEarth, are demanding that the authorities tighten air quality laws in light of the latest science to protect them and their families from pollution. The claimants say that failing to act breaches their fundamental right to breathe clean and healthy air and puts their and their children's health at unnecessary risk.

The ClientEarth press release can be found at clientearth.org/latest/press-office/press/belgians-follow-german-citizens-sue-government-over-air-pollution-human-rights-issues/.

NORTH AMERICA

CARB holds hearing on Advanced Clean Fleets regulation

On 18 October 2022, the California Air Resources Board (CARB) held a public hearing on the proposed Advanced Clean Fleets (ACF) regulation.

The proposal would ban diesel and gasoline truck sales by 2040 and make large trucking fleets convert to zero-emission vehicles such as electric trucks by 2042.

The proposed regulation received fiery criticism from both sides, as 167 members of the public lined up to speak at the CARB hearing—which started at 9 h and lasted well into the night. Environmentalists and public health groups called for a tougher rule that would speed up the 100% electric truck sales requirement to 2036 instead of 2040, while trucking companies said the proposal ignores concerns about electric vehicle costs and technology, lack of infrastructure and the loss of good-paying jobs.

The proposed ACF regulation complements the already adopted Advanced Clean Truck (ACT) rule that sets zero emission vehicle (ZEV) requirements for manufacturers of heavy-duty trucks. The purpose of the Advanced Clean Fleets regulation is to accelerate the widespread adoption of ZEVs in the medium- and heavy-duty truck sector.

CARB is expected to hold a second hearing on the ACF proposal and vote in the Spring 2023.

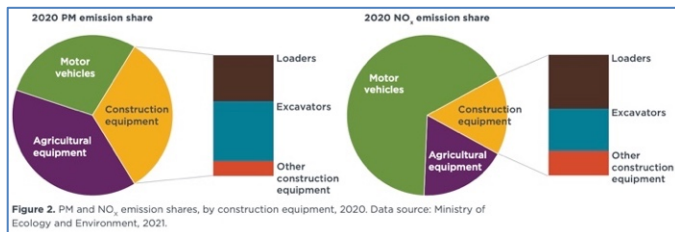
The ACF regulation details can be found at arb.ca.gov/our-work/programs/advanced-clean-fleets and the hearing web stream is at cal-span.org/meeting/carb_20221027.

ASIA-PACIFIC

ICCT Paper on LEZs and Zero-Emission Construction Equipment in China

On 10 October 2022, the International Council on Clean Transportation (ICCT) published a working paper on low emission zones and zero-emission construction equipment in China. ICCT describes this as an untapped policy opportunity.

It says the rapid increase in the Chinese market for construction equipment has resulted in the growth of pollutant emissions. Total PM emissions were about 77 000 tons in 2020, which was higher than that of motor vehicles (~68 000 tons) as shown below. NO_x emissions reached almost 1.5 million tons. Excavators and loaders are the top two equipment polluters, generating about 80% of the PM and NO_x emissions contributed by all construction equipment despite having a sales share of only 30%. Construction equipment emissions have become a growing concern for China’s urban air quality and carbon emissions.



The NGO goes on to say that, enabled by the Clean Air Law, cities in China have set off-road low-emission zones to restrict the use of high-emitting construction equipment. Some have shown increasing interest in deploying zero-emission technologies and policies to dramatically reduce emissions from construction equipment since the success of ultra-low and zero-emission zones in pilot projects in European cities.

However, major barriers remain in China. There is a lack of open-source data about model and technology availability and feasibility of zero-emission equipment even though manufacturers have presented zero-emission models for various types of construction equipment. Policy instruments and incentives to promote the development and adoption of zero-emission construction equipment are also lacking, according to ICCT.

ICCT presents a ‘pathway towards zero-emission zones’, stating that cities might need to further tighten the requirements of low-emission zones for construction

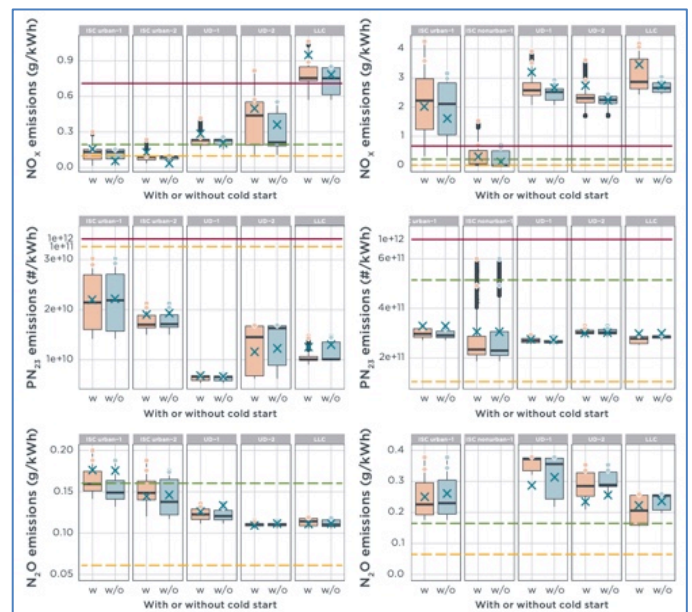
equipment. It says opportunities arise as zero-emission construction equipment become available for commercial application, and that introducing off-road ultra-low and zero-emission zones kills two birds with one stone. Thus, policy measures will be essential to encourage continuous investment in zero-emission construction equipment and upgrades to zero-emission zones. ICCT suggests that experience learned from implementing low-emission zones can potentially apply to introducing ultra-low and zero-emission zones for interested regions.

The working paper can be read in full at theicct.org/wp-content/uploads/2022/10/china-hvs-lez-construction-equipment-oct22.pdf.

ICCT Recommendations for China’s Next HDV Emission Standard

On 21 October 2022, the International Council on Clean Transportation (ICCT) published findings of tests carried out on two trucks certified to the China VI-b emission standard. The tests were performed by the Xiamen Vehicle Emission Testing Centre and, based on the results, the authors make policy recommendations for the next generation of heavy-duty vehicle (HDV) standards, China VII.

Although both vehicles complied with the China VI emission standard for emissions of regulated pollutants, the tractor-trailer (Vehicle 2) tended to have higher air pollutant and greenhouse gas (GHG) emissions than the straight truck (Vehicle 1) in all the parallel portable emissions measurement system test cycles and on the same chassis dynamometer test cycle.



Additionally, ICCT says both are far from meeting the limits that have been proposed for the upcoming Euro VII standard. In particular, tests showed that control of emissions of nitrogen oxides (NO_x) did not perform well in certain

circumstances, including cold-start, long-idling, and low-load conditions. Given this, ICCT states that China's next regulations should include clear regulatory provisions that target these.

It goes on to say that nitrous oxide (N₂O) emissions were a non-negligible component of total GHG emissions; they were an average of 5% of total tailpipe GHG emissions from Vehicle 1 and 9% for Vehicle 2. As such, the authors recommend that China regulate both N₂O and CO₂ emissions to reduce total GHG emissions from HDVs.

The ICCT study can be downloaded from theicct.org/publication/china-hdv-emissions-testing-oct22/.

Australian Heavy Vehicle Emission Standards

On 13 October 2022, the Australian Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Catherine King MP, announced a new ADR 80/04 based on the Euro VI (Stage C) requirements. This will be phased in for newly approved heavy vehicle models supplied from 1 November 2024 and existing heavy vehicle models still being supplied to the Australian market on or after 1 November 2025. The text of ADR 80/04 is being settled in consultation with stakeholders most directly affected by the change. As with ADR 80/03, vehicles meeting equivalent US or Japanese standards will also be accepted.

The current minimum noxious emission standard for new light vehicles in Australia is ADR 79/04, which is based on the European Euro 5 standards. The current minimum noxious emission standard for new heavy vehicles is ADR 80/03, which is based on Euro V, with vehicles meeting equivalent US or Japanese standards also accepted.

During previous consultation, stakeholders informed the Government that improved fuel quality standards are needed before Euro 6 standards can be implemented for light vehicles, as fuel quality can affect the operability of advanced petrol and diesel engines. To support the introduction of Euro 6, the Government recently implemented amendments to reduce the maximum sulfur levels permitted in petrol sold in Australia. The Department of Infrastructure, Transport Regional Development, Communications and the Arts is working closely with the Department of Climate Change, Energy, Environment and Water, which regulates fuel quality standards to consider whether further improvements to aromatics in petrol are needed to enable the introduction of Euro 6 for light vehicles.

The government announcement can be found at infrastructure.gov.au/infrastructure-transport-vehicles/vehicles/vehicle-safety-environment/emission.

New Zealand Clean Vehicle Standard

On 31 October 2022, the New Zealand government passed the Land Transport (Clean Vehicle Standard) Regulations 2022.

The Ministry of Transport explained that under the Clean Vehicle Standard "CO₂ targets for vehicle importers apply from 2023 and will strengthen significantly each year through to 2027" and that these regulations "prescribe formulas for the weight adjustment of targets, specify the types of vehicles excluded from the policy, and other details related to CO₂ accounts."

The document includes information about vehicles excluded from the regulation, how the carbon dioxide emissions of imported vehicles must be determined, as well as formulas to be used by light vehicle importers for the purposes of determining and complying with their obligations under the standard.

The Ministry of Transport produced a regulatory impact statement on 15 May 2020 to help inform the decisions taken by the Government relating to the contents of this instrument.

The new standards can be found at legislation.govt.nz/regulation/public/2022/0285/latest/whole.html and the impact assessment at transport.govt.nz/assets/Uploads/Clean-Car-Standard-Regulatory-Impact-Statement.pdf.

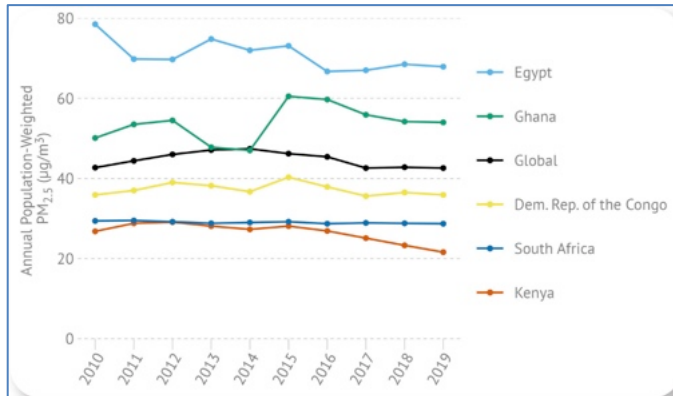
AFRICA

Report on State of Air Quality and Health Impacts in Africa

On 27 October 2022, the Health Effects Institute and the Institute for Health Metrics and Evaluation published a report titled 'The State of Air Quality and Health Impacts in Africa'.

The report presents an overview of the state of air quality and its impacts on health in Africa. It draws together data from the Global Burden of Disease project and from a recent global assessment of air pollution sources to discuss air pollution trends, sources, and associated disease burdens across this important region, with a particular focus on Egypt, Ghana, Democratic Republic of the Congo, Kenya, and South Africa.

It states that Africa experiences some of the worst air pollution and some of the most severe health consequences relative to the rest of the world. In 2019, air pollution was the second leading risk factor for death across Africa after malnutrition. Air pollution exposures from household use of solid fuels and fossil fuel sources combine with demographic and other shifts affecting the underlying health of the population. The economic toll of this pollution is substantial, with the annual cost of health damages due to disease related to air pollution amounting to an average of 6.5% of GDP across Africa.



The report says that Africa is rapidly urbanising, on track to have 13 megacities (cities with more than 10 million residents) by 2100. Many countries across the continent are also rapidly industrializing. Economic development and growth hold the potential to raise the quality of life for many millions of people. But if household, industry, and transportation sources of air pollution are allowed to grow unchecked without proper environmental regulation, this development also has the potential to further exacerbate air pollution.

The report is available to read in full at stateofglobalair.org/sites/default/files/documents/2022-10/soga-africa-report.pdf.

GENERAL

Remote Sensing in Prague

On 7 October 2022, the CARES (City Air Remote Emission Sensing) project announced the completion of its remote emission sensing campaign in Prague, Czech Republic.

Running from 5 to 23 September, the researchers used three types of contactless technologies – cross-road remote sensing, point sampling, and plume chasing – with the main objective of identifying high-emitting vehicles.

During the campaign, over 100 000 vehicles were measured using cross-road remote sensing techniques in several locations. Cross-road instruments were co-located with point sampling, which alone measured over 20 000 records and will provide additional insight on vehicle black carbon and particle number emissions. Two plume-chasing vehicles were employed to detect high-emitting vehicles: a car equipped with NO_x sensors and a van equipped with full-scope lab-grade analysers. The researchers measured over 1 400 vehicles using this method, among which around 1 000 were heavy-duty vehicles.

Early results suggest that over 12% of measured trucks had high NO_x emissions of several times their emission limits, most likely related to tampering or malfunctions. The involvement of the national police allowed a fraction of those vehicles to be pulled over for further inspections. Cases of

manipulation, defects, and suspicious engine software issues were discovered.

Measurements of this campaign will be analysed in detail in the upcoming months with the objective of helping policymakers set plans to reduce traffic-related emissions and harm to the health of citizens.

More details on the campaign are at cares-project.eu/prague-remote-emission-sensing-campaign-completed/.

IEA World Energy Outlook 2022

On 27 October 2022, the International Energy Agency (IEA) published its 'World Energy Outlook 2022'.

It says for the first time, global demand for each of the fossil fuels shows a peak or plateau across all WEO scenarios, with Russian exports in particular falling significantly as the world energy order is reshaped. The global energy crisis triggered by Russia's invasion of Ukraine is causing profound and long-lasting changes that have the potential to hasten the transition to a more sustainable and secure energy system.

The share of fossil fuels in the global energy mix in the Stated Policies Scenario falls from around 80% to just above 60% by 2050. Global CO₂ emissions fall back slowly from a high point of 37 billion tonnes per year to 32 billion tonnes by 2050. This would be associated with a rise of around 2.5 °C in global average temperatures by 2100, far from enough to avoid severe climate change impacts. Full achievement of all climate pledges would move the world towards safer ground, but there is still a large gap between today's pledges and a stabilisation of the rise in global temperatures around 1.5 °C.

The WEO states that today's growth rates for deployment of solar PV, wind, EVs and batteries, if maintained, would lead to a much faster transformation than projected in the Stated Policies Scenario, although this would require supportive policies not just in the early leading markets for these technologies but across the world.

IEA Executive Director Dr Fatih Birol said that "Amid the major changes taking place, a new energy security paradigm is needed to ensure reliability and affordability while reducing emissions".

The World Energy Outlook 2022 is available to read at [iea.org/news/world-energy-outlook-2022-shows-the-global-energy-crisis-can-be-a-historic-turning-point](https://www.iea.org/news/world-energy-outlook-2022-shows-the-global-energy-crisis-can-be-a-historic-turning-point).

RESEARCH SUMMARY

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FORTHCOMING CONFERENCES

13th ECMA International Conference & Exhibition

10-11 November 2022, New Delhi, India

ecmaindia.in/eventsdetails.aspx?mpgid=41&pgidtrail=42

Transport Research Arena 2022

14-17 November 2022, Lisbon, Portugal

traconference.eu/about-tra

FEV Zero CO₂ Mobility

15-16 November 2022, Aachen, Germany

fev-live.com/zero-co2-mobility/conference-program/

Powertrains For Renewable Fuels

22-23 November 2022, Stuttgart, Germany

kfs-veranstaltungen.de/en/events

POLIS Annual Conference

30 November – 1 December 2022, Brussels, Belgium

polisnetwork.eu/2022-annual-polis-conference

E-Fuel World Summit

6-7 December 2022, Brussels, Belgium

e-fuelworldsummit.com/

SAE On-Board Diagnostics Symposium

14-16 March 2023, Prague, Czech Republic

sae.org/attend/obd-europe

Deadline for abstracts 3 December 2022.

WCX SAE World Congress Experience

18-20 April 2023, Detroit, USA

sae.org/highlights/wcx

44th International Vienna Motor Symposium

26-28 April 2023, Vienna, Austria

wiener-motorensymposium.at/fileadmin/Media

SAE Heavy-Duty Diesel Sustainable Transport Symposium

3-4 May 2023, Gothenburg, Sweden

sae.org/attend/heavy-duty-diesel-sustainable-transport-symposium

Fuel Science – From Production to Propulsion

23-25 May 2022, Aachen, Germany

fuelcenter.rwth-aachen.de/cms/Fuelcenter/Austausch/~smxp/Int-Konferenz

AVL Vehicle & Environment Conference

25-26 May 2023, Graz, Austria

avl.com/-/vehicle-environment?j=3464186&sfmc_sub

SIA Powertrain 2023

14-15 June 2023, Paris, France

sia.fr/evenements/302-sia-powertrain-2023

Cenex-LCV

6-7 September 2023, Millbrook, United Kingdom

cenex-lcv.co.uk/