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EUROPE

ENVI Committee Vote on Car and Van CO_2 Standards

On 11 May 2022, the Environment (ENVI) Committee in the European Parliament voted on the draft report and amendments to the proposed CO_2 standards for new passenger cars and light-duty commercial vehicles. These were published last July by the EU Commission as part of the 'Fit for 55' package. The EP's ENVI Committee is leading the discussion of the dossier within the European Parliament.

The ENVI committee adopted, with 46 votes in favour, 40 against and two abstentions, its report on proposed rules to revise the CO_2 emission performance standards for new cars and vans in line with the EU's increased climate ambition. In the report, MEPs expressed their general support for the Commission proposal to reach zero-emission road mobility by 2035.

Proposed measures include: removing the incentive mechanism for zero- and low-emission vehicles ('ZLEV'), as it no longer serves its original purpose; a report by the Commission on the progress towards zero-emission road mobility by the end of 2025 and on a yearly basis thereafter, covering the impact on consumers and employment, the level of renewable energy use as well as information on the market for second-hand vehicles; gradually reducing the cap for eco-innovation, in line with the proposed stricter targets (the existing 7g CO_2/km limit should remain until 2024, followed by 5g from 2025, 4g from 2027 and 2g until the end of 2034); a report by the Commission, by the end of 2023, detailing the need for targeted funding to ensure a just transition in the automotive sector, to mitigate negative employment and other economic impacts; a common EU methodology by the Commission, by 2023, for assessing the full life cycle of CO_2 emissions of cars and vans placed on the EU market, as well as for the fuels and energy consumed by these vehicles.

Compromise amendment on alternative fuels including the crediting mechanism, allowing the "use of synthetic and alternative fuels" and their respective CO_2 emission savings to count towards the EU fleet targets for new vehicles was not adopted by ENVI, missing a majority by three votes.

Furthermore, an additional compromise amendment adjusting the 100% CO_2 emission reduction target proposed by the Commission for 2035 to a 90% target compared to 2021 levels, was not adopted either by ENVI.

The amended report is scheduled to be discussed and voted in the European Parliament's plenary sitting to be held on 7 June and if adopted, it will constitute Parliament's negotiating position with EU governments on the final shape of the legislation.

Further details can be found at europarl.europa.eu/news/en/press-room/20220509IPR29105/fit-for-55-meps-back-co2-emission-standards-for-cars-and-vans.

ENVI Report on CO_2 Performance Standards for New Cars and Vans

On 25 May 2022, the European Parliament's Environment (ENVI) Committee published its report on the proposal for a regulation of the European Parliament and of the Council amending Regulation (EU) 2019/631 as regards strengthening the CO_2 emission performance standards for new passenger cars and new light commercial vehicles in line with the Union's increased climate ambition. This follows the vote in the committee on 11 May.

The Rapporteur, MEP Jan Huitema (Renew, NL), says he considers that CO_2 standards for cars and vans have proven to be an effective measure to decrease emissions from road transport. He adds that since their entry into force, the standards have served as an incentive for car manufacturers to invest more in the development of zero-emission vehicles. As a result, a larger share of zero-emission vehicles is put on the market than previously expected. The Rapporteur therefore welcomes the strengthening of the standards proposed by the Commission to bring them in line with the Union's climate ambitions.

However, considering that new cars are often on the road much longer than 10-15 years as estimated by the Commission, the targets should be more ambitious to ensure that the EU reaches its target for climate neutrality by 2050. Strengthening the targets for 2025 and 2030 and introducing an intermediate target will ensure that the standards will continue to serve as an incentive to put more zero-emission vehicles on the market.

Mr Huitema does not believe that penalising driving by increasing the costs for consumers is the right way to achieve climate neutrality in the EU by 2050. Instead, he believes that driving itself should be made zero-emissions and affordable. The purchase price of cars and vans is one of the main buying criteria for consumers. In recent years, there has been a fast development of zero-emission vehicles. More and more zero-emission vehicles are now offered on the market, including more affordable models. Fewer moving components reduce the maintenance costs of Battery Electric Vehicles (BEVs). In the long run BEV's are competitive when it comes to the total costs of ownership. In order to make new and used zero-emission vehicles more affordable and available to purchase, the Rapporteur would like to stimulate innovation, competition and development of zero-emission vehicles.

He goes on to say that the 2035 target as well as the increased intermediate targets should send a clear signal towards the market and provide investment certainty for manufacturers to develop zero-emission vehicles further, making them more consumer friendly and affordable over

time. Additionally, further investments should be made in charging infrastructure to make the purchase of zero-emission vehicles as attractive as possible. The Alternative Fuels Infrastructure Regulation as proposed by the Commission should be made more ambitious in terms of charging infrastructure for cars and vans, to correspond with the ambition of the CO_2 standards. Other policies that can further support the transition to climate neutral transport should be brought in line with the stricter CO_2 standards, such as a revision the Energy Performance of Buildings Directive and the Clean Vehicles Directive.

The full ENVI report is available to read at europarl.europa.eu/doceo/document/A-9-2022-0150_EN.html#title2.

ENVI Committee Adoption of Parts of 'Fit for 55' 2030 Package

On 17 May 2022, the EP's Committee on Environment, Public Health and Food Safety (ENVI) adopted five reports of the 'Fit for 55' package.

MEPs voted for reform of the Emissions Trading System (ETS), including a new ETS II for buildings and road transport. This new ETS will not include private buildings or transport until 2029, subject to an assessment by the Commission.

The committee called for a broader scope and faster implementation of the EU Carbon Border Adjustment Mechanism (CBAM) to prevent carbon leakage and raise global climate ambition. MEPs also amended EU effort-sharing legislation, covering GHG emissions in sectors not included in the ETS, representing roughly 60% of EU emissions. For the first time, all EU member states would have to reduce greenhouse gas emission with targets ranging between 10-50%.

Finally, MEPs agreed to increase the EU carbon sinks target for land use, land use change and forestry sector (LULUCF), which would de facto increase the EU's 2030 GHG reduction target to 57%.

All these reports, including that on CO_2 emission standards for cars and vans, are scheduled for a vote during the 6-9 June plenary session, after which Parliament will be ready to start negotiations with the European Council.

The ENVI press release is available to read in full at europarl.europa.eu/news/en/press-room/climate-change-meps-push-for-accelerated-eu-action.

Public Consultation on Draft Euro 6e

On 23 May 2022, the European Commission submitted its draft regulation to a four-week public consultation.

The proposal includes amendments to Regulation (EU) 2017/1151. It reflects the adaptation to technical progress achieved in the UN World Forum for Harmonisation of Vehicle Regulations (WP.29) on the UN Regulation No. 154 for the Worldwide harmonised Light-duty vehicles Test Procedure (WLTP) and in the draft UN Regulation on Real Driving Emissions (RDE) test procedure.

The measure includes improvements to the RDE test procedure and repeals obsolete provisions for the rules on access to vehicle on-board diagnostics (OBD) information and vehicle repair and maintenance information, which were incorporated into Regulation (EU) 2018/858 (Type Approval Framework).

The Commission's four-week public consultation on the draft Commission Regulation runs until 20 June 2022.

The public consultation can be found at ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13483-Amendments-to-emissions-ta-testing-of-ldv-WLTP-and-RDE.

Environment Commissioner Structured Dialogue with ENVI Committee

On 30 May 2022, Environment Commissioner Mr Virginijus Sinkevičius held a structured dialogue with the European Parliament's Environment (ENVI) Committee. In his opening speech he covered a broad range of subjects, saying he wanted to listen to the committee about its priorities for the 2023 work programme.

With regards to air pollution, Mr Sinkevičius said that the Commission has promised to draw on the lessons learnt from the evaluation of the current air quality legislation, and to align EU air quality standards more closely with the World Health Organization recommendations. It also proposed to strengthen provisions on monitoring, modelling and air quality plans to help local authorities achieve cleaner air. He stated that these processes are now under way and the Commission has taken good note of the update to the WHO Global Air Quality Guidelines published in September 2021.

The Commissioner's full speech is available to read at ec.europa.eu/commission/presscorner/detail/en/SPEECH.

Think Tank Briefing on EU's Zero Pollution Ambition

On 3 May 2022, the European Parliament's Research Service (Think Tank) published a briefing on the EU's zero pollution ambition. The document explains that the EU has set the goal of achieving zero pollution for a non-toxic environment by 2050. This would mean reducing air, water and soil pollution to 'levels no longer considered harmful to health and natural ecosystems and respecting the boundaries the planet can cope with'. Achieving this long-term ambition will mean updating the comprehensive legal framework currently in place at EU level to address pollution in order to keep up with the latest scientific evidence.

Regarding air pollution, the briefing outlines the health and environmental impacts. It then describes the three pillars of EU legislative framework: source-specific emission

standards, the National Emission Ceilings Directive and Ambient Air Quality Directives.

Finally, the document covers the state of play regarding various pollutants in the EU. In 2019, 97% of the EU's urban population was exposed to concentrations of $PM_{2.5}$ above the latest WHO guideline level. By contrast, 4% of EU urban residents were exposed to $PM_{2.5}$ levels exceeding the EU standard. The respective figures were 94% and 4% for nitrogen dioxide; and 99% and 34% for ozone levels. The EEA estimated that 178 000 lives would have been saved had the new WHO air quality guideline of 5 µg/m^3 for $PM_{2.5}$ been achieved across the EU-27 in 2019.

Under the zero-pollution action plan, the European Commission has committed to revise the EU's air quality standards to align them more closely with the new WHO recommendations. The revision of the AAQ directives, planned for the third quarter of 2022, may also include an explicit mechanism for adjusting air quality standards to technical and scientific progress, including for air pollutants that are currently not covered. In the meantime, the Commission intends to introduce stricter requirements to tackle air pollution at source, such as from agriculture, industry, transport, buildings and energy. Rules on pollutant emissions from vehicles will also be reviewed, with more stringent standards expected in July 2022.

The briefing document can be read in full at europarl.europa.eu/RegData/etudes/BRIE/2022/729404/EPRS_BRI(2022)729404_EN.pdf.

Think Tank Briefing on Road Transport Emissions Pricing Instruments

On 11 May 2022, the Think Tank of the European Parliament published a briefing giving an overview of pricing instruments on road transport CO_2 emissions. It presents the current use of these instruments in the EU, the main EU legal framework in this field including the expected developments, and the impacts these instruments may have on the road transport sector and society in general. The study was carried out for the Transport and Tourism (TRAN) Committee of the European Parliament.

The research found that pricing instruments on road transport CO_2 emissions are widely applied in Europe, although there are significant differences between Member States. More broadly, Member States also differ to the level by which their road transport sectors meet the 'polluter-pays' and 'user-pays' principles.

It says the European Commission has presented proposals to incentivise the pricing of CO_2 emissions of road transport by introducing emission trading for this sector as well as by revising the Energy Taxation Directive. One of the aims of the latter is to incentivise the uptake of low-carbon energy carriers by the transport sector.

The report adds that pricing instruments (particularly emission trading and fuel taxes) are effective in reducing CO_2 emissions in the road transport sector. They may, however, also have significant distributional impacts, which should be carefully considered in order to gain social acceptance for this type of instruments.

Table 3: Overview of CO_2 reduction options incentivised by the various pricing instruments

Pricing instruments		Reduced vehicle ownership	More fuel efficient vehicles	Shift to low-carbon energy carriers	Fuel efficient driving	Increased transport efficiency	Modal shift to low-carbon modes	Limiting overall transport demand
	Increase fuel tax level	■	■		■	■	■	■
	Carbon content differentiation of fuel taxes			■				
	ETS for road transport	■	■	■	■	■	■	■
	Increase of vehicle taxes	■					■	■
	CO_2 differentiation of vehicle taxes		■					
	Flat road infrastructure charges					■	■	■
	CO_2 differentiated road infrastructure charges		■					

Source: own analysis based on Van Essen et al. (2010)

The Think Tank proposes a range of policy recommendations in order to optimise the use of pricing instruments in decarbonising the road transport sector. It says a balanced mix of pricing instruments such as fuel taxers and/or an Emission Trading System would be the cornerstone(s) of an effective package of pricing instruments on CO_2 emissions. However, CO_2 based purchase taxes may provide an effective additional incentive for the uptake of low- and zero-emission vehicles. The briefing proposes that pricing instruments are integrated in a broader package of CO_2 reduction policies, and that the political and social acceptance of pricing instruments are considered. In order to maintain the effectiveness and revenue of pricing instruments, regular updates of CO_2 based pricing instruments are required, taking trends in the car industry and consumer preferences into account. Finally, the report concludes that an overall transport pricing policy should not only consider CO_2 emissions, but also other externalities like air pollution and congestion.

The briefing can be found at europarl.europa.eu/RegData/etudes/STUD/2022/699641/IPOL_STU(2022)699641_EN.pdf.

TRAN Opinion on Revision of European Emissions Trading System

On 11 May 2022, the Transport and Tourism (TRAN) Committee of the European Parliament published an opinion on the revision of the European Emissions Trading System (ETS), an integral part of the 'Fit for 55' package. The Rapporteur is MEP Andrey Novakov (EPP, BG).

The proposal by the Commission provides for an increased target for lowering emissions, from 43 to 61% below 2005 levels by 2030, inclusion of shipping emissions and a gradual phase out of the free emission allowances for the aviation sector. In addition, the Commission proposes to launch a

new separate emissions trading system to cover road transport and buildings.

The Rapporteur says he supports the Union's ambitions to tackle climate change and decarbonise the EU economy. However, he has 'serious concerns' that the extension of the EU ETS to cover road transport and buildings will negatively affect end-consumers, citizens and businesses, through further increasing fuel costs as the cost of ETS allowances will be passed through to end-consumer prices, in particular for lower- and middle-income households, reducing their mobility and leading to energy and transport poverty. The Rapporteur therefore considers that an extension of the new ETS to both road transport and buildings is premature.

MEP Novakov considers that a comprehensive impact assessment of the entire 'Fit for 55' package, indicating the real burden to European citizens and thoroughly analysing the risk and scale of energy and transport poverty, is a crucial pre-condition before a well-informed final decision on the new ETS can be made.

The opinion, including proposed amendments, is at europarl.europa.eu/doceo/document/TRAN-AD-704649_EN.pdf.

EU Greenhouse Gas Inventory Report

On 31 May 2022, the European Environment Agency (EEA) published the annual EU greenhouse gas inventory for 1990-2020 and inventory report for 2022, which it has submitted to the United Nations Framework Convention on Climate Change (UNFCCC). The overall reduction in 2020 greenhouse gas emissions was 34% compared to the 1990 base year, or 1.94 billion tonnes of CO_2eq (carbon dioxide equivalent).

EEA says that key drivers that led to emission reductions over the past three decades include the growing use of renewables, the use of less carbon intensive fossil fuels and improvements in energy efficiency, structural changes in the economy, lower demand for heating due to warmer winters in Europe. The effect of the 2020 economic recession triggered by the COVID-19 lockdowns also had a substantial impact on reducing emissions in 2020.

All sectors reduced emissions except for transport and refrigeration and air conditioning. Reductions were largest for manufacturing industries and construction, electricity and heat production, iron and steel production (including energy-related emissions) and residential combustion.

Almost all EU Member States reduced emissions compared to 1990 and contributed to the overall positive EU performance. The UK and Germany accounted for 47% of the total net reductions over the past 30 years.

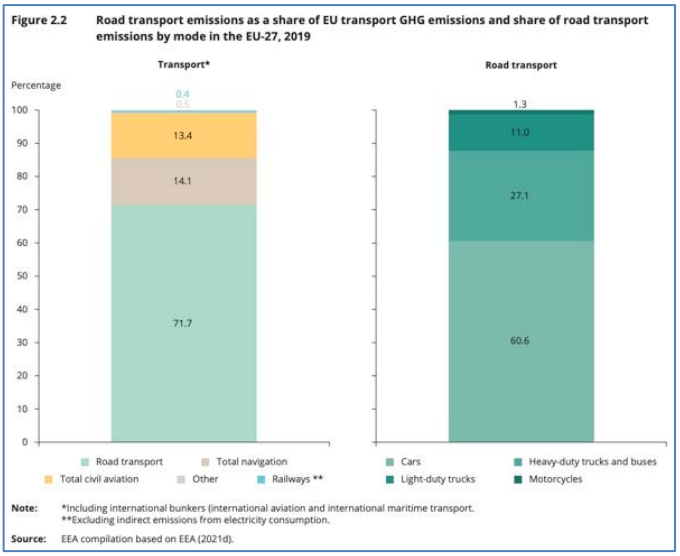
The EEA submission to the UNFCCC can be found at eea.europa.eu/highlights/continued-drop-in-eus-greenhouse?utm_source=EEASubscriptions.

EEA Assessment on Road Transport Decarbonisation

On 1 June 2022, the European Environment Agency (EEA) published its annual assessment on 'Decarbonising road transport – the role of vehicles, fuels and transport demand'.

According to EEA data, CO_2 emissions from passenger cars in the 27 EU Member States increased by 5.8 %, and emissions from heavy goods vehicles increased by 5.5 %, from 2000 to 2019. The main reason for the total increase in both car and truck emissions was growing transport volumes, which have only partially been offset by better fuel efficiency and the use of biofuels, the EEA assessment shows.

EEA says that improving vehicle CO_2 efficiency, including increasing the share of electric vehicles, is expected to play an important role in decarbonising passenger and freight transport – especially when coupled with continued decarbonisation of electricity and fuel production. However, the EEA assessment also finds that decarbonising Europe's mobility system requires methods beyond efficiency gains in road transport.



The EEA report can be downloaded from eea.europa.eu/media/europes-road-transport-needs-to?utm_source=EEASubscriptions.

Court of Justice Ruling on Health Damage from Air Pollution

On 5 May 2022, the Advocate General of the Court of Justice of the EU ruled that Member States may be liable for health damage caused by excessive air pollution.

A resident of the Paris agglomeration is seeking compensation from the French State totalling €21 million because, he claims, the increasing air pollution in that agglomeration has damaged his health.

In 2019, the Court of Justice found that the limit values for nitrogen dioxide in the Paris agglomeration had been exceeded since 2010, the point at which they had to be complied with. The French Council of State also found that in Paris those limit values continued to be exceeded into 2020 and that the limit values for PM10 (particulate matter) were exceeded for the years up to 2018 and 2019.

The Administrative Court of Appeal, Versailles, which is hearing the dispute, has referred to the Court of Justice the question whether and, if so, under what conditions individuals can claim compensation from the State for health damage caused by infringement of the EU limit values. In her opinion, Advocate General Juliane Kokott takes the view that an infringement of the limit values for the protection of air quality under EU law may give rise to entitlement to compensation from the State.

Advocate General Kokott ruled that three conditions must be satisfied for Member States to be liable. Firstly, the injured party must prove that he or she has stayed, for a sufficiently long period of time, in an environment in which the limit values for ambient air quality under EU law have been seriously infringed. Secondly, he or she must prove damage that can be linked to the relevant air pollution in the first place. And thirdly, the injured party must prove a direct causal link between that stay at a place where a limit value for ambient air quality has been seriously infringed and the damage claimed. The Advocate General does however point out that the Member State may exonerate itself by proving that such exceedance of the limit values would also have occurred if it had adopted in good time air quality plans which satisfy the requirements of the directive.

Full details of the ruling can be found at curia.europa.eu/jcms/upload/docs/application/pdf/2022-05/cp220078en.pdf.

Court Ruling on Italian Breach of Air Pollution Rules

On 12 May 2022, the European Court of Justice ruled that Italy breached EU air pollution rules and the country may now face penalties.

The Court ruled that the limits of nitrogen dioxide (NO_2) have been "systematically and continuously exceeded" in specific areas of Italy, including Turin, Milan, Bergamo, Brescia, Genoa, Florence, Rome, Catania and some industrial areas.

The judges found that the NO_2 limits were passed in various periods since 2010 and the country did not adopt "appropriate measures" to comply with the annual threshold established by the EU Ambient Air Directive. It had also failed to take steps to ensure that the period in which the values were exceeded was "as short as possible".

The court ruling can be found at eur-lex.europa.eu/legal-content/IT/TXT/HTML/?uri=CELEX:62019CJ0573&from=EN.

European Commission Support for Electrolyser Capacity Expansion

On 5 May 2022, Commissioner for Internal Market Thierry Breton and European electrolyser manufacturers signed a Joint Declaration whereby industry committed to a tenfold increase of its electrolyser manufacturing capacities by 2025. This will enable the annual EU production of 10 million tons of renewable hydrogen by 2030, set as target in the March 2022 REPowerEU Communication. It will improve Europe's sustainable and secure energy supply and reduce EU's reliance on Russian gas.

The Joint Declaration sets out a target agreed by electrolyser manufacturers in Europe to increase their manufacturing capacity tenfold to 17.5 GW per year. It also features Commission actions to put in place a supportive regulatory framework, facilitate access to finance and promote efficient supply chains.

The Commission states that the actions agreed will pave the way for large-scale clean hydrogen production in Europe. This will enable for the decarbonisation of otherwise hard-to-abate industry sectors and transport applications in line with our 'Fit for 55' objectives and replacing Russian gas.

The Joint Declaration can be downloaded from ec.europa.eu/commission/presscorner/detail/en/IP_22_2829.

Commission Communication on REPowerEU Plan

On 18 May 2022, the European Commission published communications on the REPowerEU plan. This plan is intended to reduce EU dependence on Russian fossil fuels by "fast forwarding the clean transition and joining forces to achieve a more resilient energy system and a true Energy Union".

The plan puts forward actions to save energy, diversify supplies, substitute fossil fuels by accelerating Europe's clean energy transition, and "smartly combine investments and reforms".

The communication says that renewable hydrogen will be key to replace natural gas, coal and oil in hard-to-decarbonise industries and transport. It adds that in transport, electrification can be combined with of the use of fossil-free hydrogen to replace fossil fuels. To enhance energy savings and efficiencies in the transport sector and accelerate the transition towards zero-emission vehicles, the Commission will consider a legislative initiative to increase the share of zero emission vehicles in public and corporate car fleets above a certain size. It also calls on the co-legislators to swiftly adopt the pending proposals on alternative fuels and other transport related files supporting green mobility. Finally, the Commission says it will adopt in 2023 a legislative package on greening freight transport.

The EC's communication can be downloaded from energy.ec.europa.eu/communication-repowereu-plan-com2022230_en.

NORTH AMERICA

CARB Advanced Clean Fleet Draft Regulation Workshops

On 2, 4 and 6 May 2022, the California Air Resources Board (CARB) held workshops on the draft regulatory language for the Advanced Clean Fleet (ACF) rules for certain fleets in Classes 2b through to 8.

The ACF rules define regulated purchase requirements for the categorised fleets (High Priority and Federal, Drayage, and State and Local Government) which are licensed, operated or controlled in the state of California with gross vehicle weights of 8500lbs or higher. CARB has recently added light-duty vehicles used for package, parcel or mail delivery.

CARB presented details of exempt vehicles, the proposed 'Model Year Schedule' showing the progression of the fleet over the coming years in terms of new purchases and retired vehicles, and zero emission vehicle (ZEV) milestones with ultimate targets for 100% ZEV.

Zero-Emission Fleet Percentage	10%	25%	50%	75%	100%
Box trucks, vans, two-axle buses, yard trucks	2025	2028	2031	2033	2035
Work trucks, day cab tractors, three-axle buses	2027	2030	2033	2036	2039
Sleeper cab tractors and specialty vehicles	2030	2033	2036	2039	2042

Stakeholders were able to comment on exemptions, implementation timelines, and commercial availability of ZEVs. CARB is expected to revise its ACF proposal in the coming months based on stakeholder input, with a second meeting to finalise the regulation scheduled for early 2023.

CARB presentations and meeting details are at arb.ca.gov/our-work/programs/advanced-clean-fleets/advanced-clean-fleets-meetings-events.

California In-Use Testing Programme for Tier 5 Off-Road Engines

On 2 May 2022, California Air Resources Board (CARB) held an online workshop on the development of an in-use emission testing programme for new Tier 5 off-road engines.

Under the existing off-road in-use compliance (ORIUC) program, CARB has the authority to test in-use engines up to 75% of their useful life (UL) period, using the test procedures used for certification (transient, steady-state, and not-to-exceed). At the Tier 5 stage, CARB intends to implement a manufacturer-run ECU/sensor-based and PEMS in-use testing programme – similar to the existing in-use testing requirements for on-road heavy-duty diesel engines and for large nonroad SI engines.

The changes to the ORIUC programme would include off-cycle test procedures using PEMS, updated emissions calculations and evaluation methods, and changes to expand the UL limits for ORIUC engines.

The new in-use programme would be applicable to engines with a power rating of >56 kW, which at minimum would require SCR aftertreatment to comply with emission standards. The programme concept involves three steps: data from engine control unit and sensors; triggered PEMS testing; and corrective action if PEMS testing shows that an engine family is not compliant.

Further details can be found at carbstage.arb.ca.gov/sites/default/files/2022-04/May%202nd%20Tier%205%20Workgroup%20slides.

ASIA-PACIFIC

New Zealand Emissions Reduction Plan

On 16 May 2022, the New Zealand adopted its first Emissions Reduction Plan. This is a statutory document required under the Climate Change Response Act to help achieve net zero CO_2 emissions by 2050 domestically and support the global effort to limit temperature rise to 1.5˚C according to the Paris Agreement. The plan sets out carbon budgets and targets as well as define actions across all sectors in the economy.

The emissions reduction plan will help New Zealand move away from fossil fuels and reduce exposure to volatile global fuel markets. The Government will help households reduce their transport emissions by improving access to affordable, sustainable transport options. The goals for transport include: (1) continuing the Clean Vehicle Discount to help New Zealanders purchase low- and zero-emission vehicles and reduce their fuel and vehicle maintenance costs, (2) improving electric vehicle charging infrastructure across New Zealand to ensure that all New Zealanders can charge when they need to, (3) making cleaner vehicles and low-emissions alternatives affordable for low-income households through a vehicle scrap-and-replace scheme and (4) improving travel choices and accessibility by providing people with more convenient, affordable and frequent buses and trains, as well as safer walkways and cycle lanes.

Specific targets are defined, including reduce total kilometres travelled by the light fleet by 20% by 2035 through improved urban form and providing better travel options, particularly in the largest cities, increase zero-emissions vehicles to 30% of the light fleet by 2035, reduce emissions from freight transport by 35% by 2035 and reduce the emissions intensity of transport fuel by 10% by 2035.

The emissions reduction plan can be accessed at environment.govt.nz/publications/aotearoa-new-zealands-first-emissions-reduction-plan/.

UNITED NATIONS

Carbon Life Cycle Assessment Workshop

On 31 May 2022, a workshop on Carbon Life Cycle Assessment (LCA) was organised during the 86th session of the Working Party on Pollution and Energy (GRPE).

The sessions included presentations about different LCA methodologies being used by different stakeholders. Different Contracting Parties including Japan, Korea, France, Russia, USA and the European Commission provided their views as well as presented LCA projects being conducted within their countries.

MECA, presented its LCA analysis and LCA dashboard which allows the impact of different parameters to be considered, including the pollutant emissions generated by the vehicles and the generation of the energy. The methodology allows the evaluation of different fleet compositions, including vehicles powered by different fuels and penetration of different powertrains in the fleet.

OICA and CLEPA presented their views on the application of LCA in the automotive industry. OICA said it is premature to cast LCA within legislation, but there is a need to formulate international guidelines for standardisation of the method. CLEPA called for regulation of CO_2 emissions from vehicles on a life cycle basis to incentivise technologies with the lowest carbon impact for the entire value chain.

The European Commission, DG Clima, stated the CO_2 emissions standards for light- and heavy-duty vehicles include the mandate to evaluate by 2023 the possibility to develop a common EU methodology for LCA.

During the subsequent GRPE proper session, the GRPE considered the result of the Carbon Life Cycle workshop. It was noted there is a strong need to define a harmonised approach on this subject. Contracting Parties including the European Commission, Japan, Korea, Russian Federation, Sweden, Switzerland, the UK and the USA, as well as stakeholders including OICA and CLEPA presented their views. The GRPE endorsed the creation of the Informal Working Group on Life Cycle Assessment (IWG LCA).

Presentations of the GRPE LCA workshop can be found at unece.org/transport/events/wp29grpe-workshop-carbon-lca-vehicles.

GENERAL

ICCT Paper on Reducing Oil Dependence in EU Through HDV Measures

On 5 May 2022, the International Council on Clean Transportation (ICCT) published a fact sheet on reducing oil dependence in the EU through applied measures for trucks and buses.

The paper says trucks and buses in the EU represent just 2.5% of the total stock of vehicles on the road, yet they are responsible for 21% of total annual oil consumption. ICCT points out that CO_2 standards are currently in place to reduce emissions and fossil fuel use from trucks in the long-term, however increasing levels of activity sees little real reduction in energy consumption in the short-term. The NGO says a variety of measures can be implemented this year to reduce oil consumption from trucks and buses both immediately and by 2027.

One of the measures ICCT proposes is to increase the CO_2 standards emission reduction from 30% to 60% in 2030 in the upcoming revision. Other measures include reducing the speed limit of all trucks and buses by 5 km/h, establishing a funding mechanism for the provision of low rolling resistance tires to one in ten vehicles, and establishing a funding mechanism for the provision of aerodynamic devices to one in ten trailers used in long-haul transport.

ICCT states that the combination of these measures would reduce the EU's annual oil consumption by 37.5 million barrels of oil equivalent by 2027, or a7% reduction over current consumption levels in the HDV sector.

The ICCT fact sheet can be found at theicct.org/publication/fs-eu-hdv-oil-imports-may22/.

RESEARCH SUMMARY

Effects of Emissions and Pollution

Toxicological effects of traffic-related air pollution on the lungs: Evidence, biomarkers and intervention, Jiani Xiao, et al.; *Ecotoxicology and Environmental Safety* (June 2022), Vol. 238, 113570, doi: 10.1016/j.ecoenv.2022.113570.

Long-Term Exposure to Traffic-Related Air Pollution and Selected Health Outcomes: A Systematic Review and Meta-Analysis, H. Boogaard, et al.; *Environment International* (in press), doi: 10.1016/j.envint.2022.107262.

Cardiovascular effects of traffic-related air pollution: A multi-omics analysis from a randomized, crossover trial, Qingli Zhang, et al.; *Journal of Hazardous Materials* (August 2022), Vol. 435, 129031, doi: 10.1016/j.jhazmat.2022.129031.

Short-term NO_2 exposure and cognitive and mental health: A panel study based on a citizen science project in Barcelona, Spain, Florence Gignac, et al.; *Environment International* (June 2022), Vol. 164, 107284, doi: 10.1016/j.envint.2022.107284.

Reductions in NO_2 and emergency room visits associated with California's goods movement policies: A quasi-experimental study, Ying-Ying Meng, et al.; *Environmental Research* (in press), doi: 10.1016/j.envres.2022.113600.

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Air Quality, Sources and Exposure

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FORTHCOMING CONFERENCES

SIA Powertrain & Electronics
15-16 June 2022, Rouen, France
sia.fr/evenements/263-sia-powertrain-energy-rouen-2022
AECC will make a presentation.

ETH Conference on Combustion-Generated Nanoparticles
21-23 June 2022, Online
nanoparticles.ch

Cambridge Particle Meeting
24 June 2022, Cambridge, UK and online
cambridgeparticlemeeting.org

Catalysis and Automotive Pollution Control (CAPoC12)
29-31 August 2022, Brussels, Belgium
capoc.ulb.ac.be

SAE Powertrains, Fuels and Lubricants
6-8 September 2022, Krakow, Poland
sae.org/attend/pfl

Cenex-LCV
7-8 September 2022, Millbrook, UK
cenex-lcv.co.uk/

3rd SAENA Conference on Sustainable Mobility
25-28 September 2022, Catania, Italy
universitacusano.com/csm2022

Aachen Colloquium Sustainable Mobility
10-12 October 2022, Aachen, Germany
aachener-kolloquium.de/en
AECC will make a presentation.

8th International MinNOx Conference
26-27 October 2022, Berlin, Germany
iav.com/en/events/8-internationale-minnox-conference

Transport Research Arena 2022
14-17 November 2022, Lisbon, Portugal
traconference.eu/about-tra

FEV Zero CO_2 Mobility
15-16 November 2022, Aachen, Germany
fev-live.com/zero-co2-mobility/conference-program/

POLIS Annual Conference
30 November – 1 December 2022, Brussels, Belgium
polisnetwork.eu/2022-annual-polis-conference.

AVL Vehicle & Environment Conference
25-26 May 2023, Graz, Austria
avl.com/-/vehicle-environment?j=3464186&sfmc_sub