

COMMENTS ON EU ZERO POLLUTION AMBITION FOR AIR, WATER AND SOIL PUBLIC CONSULTATION

The European Commission released on 11 November 2020 the public consultation on an EU Action Plan “Towards a Zero Pollution Ambition for air, water and soil – building a Healthier Planet for Healthier People”. The emissions control industry that AECC represents, welcomes the opportunity to comment on the proposed EU Action Plan.

AECC welcomes the Zero Pollution Ambition EU Action Plan which includes the preparation of the next step in the emission standards for cars, vans, lorries, and buses. Road transport is fundamental to ensure the mobility of citizens and movement of goods in Europe. The new emissions standards will be instrumental in keeping the road transport sector on track towards zero-emission mobility in 2050.

AECC's vision¹ is fully aligned to the European Commission's objective to “clean” road transport and ensure protection of human health in urban areas. Through the years, European vehicle emissions regulations encouraged technological development to help reduce air pollution and protect the environment. This enhanced the application of vehicle emission control systems and other powertrain measures which have led to vehicle emissions reduction and improved air quality in Europe.

AECC member companies will continue to supply these emission control technologies to the automotive industry as part of the vehicle manufacturers' powertrain design. These emission control catalysts, adsorbers and filters are integrated with engine design, hybrid systems and operating strategies into advanced emission control systems by the vehicle manufacturers.

AECC regularly demonstrates the emissions reductions that are technically feasible and recently showed that advanced emission control systems can achieve near-zero emissions for NOx and particulates in real world driving² on a medium-sized diesel car. Notwithstanding the fact that emission control technologies reduce pollutant emissions, AECC has also demonstrated low CO₂ lifecycle emissions through testing vehicles with renewable fuels, showing that lowering pollutant emissions is compatible with lowering CO₂ emissions³. These technologies are available today and are therefore an important option among the solutions that you will require to successfully ensure a solid pathway towards zero emission mobility in 2050.

The zero pollution action plan should cover the need to strengthen implementation and enforcement as well as improving the governance of pollution policies which are fundamental to having a stable policy framework. However, the policy framework must be based on a robust technical approach. On this basis, we would like to propose the following important points in particular for the new emissions standards for cars, vans, lorries and buses⁴:

- The new emissions standards should focus on real world emissions. They need to represent actual mobile source usage in the European region. The new standards should therefore legislate actual tailpipe emissions: use all data of each emissions test without exclusion or modification; and report the actual measured data accepting these will form a range of emission levels according to the route, traffic, weather and driver influence.
- The next standards need to be fuel- and technology-neutral. The same limits and procedures should apply for each type of powertrain within an application, irrespective of engine technology, type of fuel or level of electrification to ensure a free choice for consumers without market distortion. The new emissions standard should also aim for application-neutral stringency, despite differences in vehicle design and function, as the impact on local air quality is independent of the type of vehicle.
- The Euro 7 should legislate according to a ‘total system approach’ using a ‘whole vehicle basis’. The new emissions standard should consider the vehicle as a single system and define testing procedures accordingly, not separately for specific components. A total system approach will simplify the legislation and eliminate possible loopholes and derogations. Requirements should be consistent throughout the different legislative elements that apply over the lifetime of the vehicle, from Type-Approval over In-Service Conformity up to Market Surveillance.

As technology continues to improve, the future of personal transport in cities will comprise a range of technologies from ‘conventional’ petrol and diesel to electrified engines - mild, full or plug-in hybrid – as well as electric cars

powered by batteries and even fuel cell models. These will all be needed to replace older, more polluting vehicles on European roads. Internal combustion engine vehicles need to drastically reduce their greenhouse gas emissions:

- More sustainable and renewable fuels should be used in cars with internal combustion engines. This will guarantee lower greenhouse gas emissions from new vehicles as well as from the existing vehicle fleet.
- Renewable liquid fuels, like e-fuels or carbon-neutral fuels, are particularly fit for purpose; this is because they can use the same fuelling infrastructure already in place allowing a swift implementation in the market.

AECC agrees that the zero-pollution ambition has the potential to contribute to the transition to a clean and circular economy. With the development of a European circular economy, and as recycling of vehicle components continues to increase, the demand for mined precious metals used in catalysts will reduce, increasing the sustainability of these technologies.

Finally, AECC would like to confirm its strong commitment to work with the EU Commission services on the new Euro 7 emissions standards for cars, vans, lorries and buses. AECC will continue to provide robust scientific data and facilitate informed discussions on how to improve the local and global air quality whilst maintaining the competitiveness of the European automotive industry through the integration of modern emission control technologies within the vehicle powertrain system.

Should you need more information, you can contact AECC at info@aecc.eu.

09.02.2021

References:

¹ AECC 2025 Vision for clean, efficient, convenient and affordable mobility

<http://www.aecc.eu/wp-content/uploads/2020/02/200203-AECC-Vision-Document-Web.pdf>.

² “Integrated Diesel System Achieving Ultra-Low Urban and Motorway NOx Emissions on the Road”, J. Demuyneck, et al.; 40th International Vienna Motor Symposium, 15-17 May 2019,

<http://www.aecc.eu/wp-content/uploads/2019/04/190516-AECC-IAV-IPA-Integrated-Diesel-System-achieving-Ultra-Low-NOx-on-the-road-Vienna-Symposium.pdf>.

³ “Improving Air Quality and Climate Through Modern Diesel Vehicles”, J. Demuyneck, et al.; MTZ worldwide, Issue 9/2020

<https://www.aecc.eu/wp-content/uploads/2020/09/200901-modern-diesel-MTZ.pdf>

⁴ AECC position on Euro 7/VII emissions standards

<https://www.aecc.eu/wp-content/uploads/2020/07/200709-AECC-position-on-Euro-7.pdf>

AECC is an international non-profit scientific association of European companies operating worldwide in the research, development, testing and manufacture of key technologies for emissions control. Their products are the ceramic substrates for catalysts and filters; catalysts (substrates with catalytic materials incorporated or coated); adsorbers; filter-based technologies to control engine particulate emissions; and speciality materials incorporated into the catalyst or filter. Members' technology is integrated in the exhaust emissions control systems of cars, commercial vehicles, buses, non-road mobile machinery and motorcycles in Europe. More information on AECC can be found at www.aecc.eu and www.dieselinformation.aecc.eu.

AECC's members are: BASF Catalysts Germany GmbH, Germany; Johnson Matthey PLC, United Kingdom; NGK Europe GmbH, Germany; Solvay, France; Umicore AG & Co. KG, Germany and Vitesco Technologies GmbH, Germany.

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