

Type-approval of motor vehicles and engines with respect to their emissions and battery durability (Euro 7)

2022/0365(COD) - 10/11/2022 - Legislative proposal

PURPOSE: to replace and simplify previously separate emission rules for cars and vans (Euro 6) and lorries and buses (Euro VI) to meet the European Green Deal's zero-pollution ambition (Euro 7).

PROPOSED ACT: Regulation of the European Parliament and of the Council.

ROLE OF THE EUROPEAN PARLIAMENT: the European Parliament decides in accordance with the ordinary legislative procedure and on an equal footing with the Council.

BACKGROUND: road transport is the largest source of air pollution in cities. In 2018, more than 39% of NO_x and 10% of primary PM_{2.5} and PM₁₀ emissions in the EU came from road transport. It is estimated that chronic exposure to air pollution from fine particulate matter and nitrogen oxides from road traffic was responsible for more than 70 000 premature deaths in the EU-27 in 2018, out of 300 000 such deaths from air pollution as a whole. People living in densely populated areas are especially affected.

The rules on pollutant emissions are complementary to the rules on CO₂ emissions. The agreed target for **100% CO₂ reduction by 2035 for cars and vans** has been taken into account in this proposal.

PURPOSE: the proposed Regulation establishes common technical requirements and administrative provisions for the emission type-approval and market surveillance of motor vehicles, systems, components and separate technical units, with regard to their CO₂ and pollutant emissions, fuel and energy consumption and battery durability. It lays down rules for the initial emission type approval, conformity of production, in-service conformity, market surveillance, the durability of pollution control systems and traction batteries, on-board monitoring systems, security provisions to limit tampering and cybersecurity measures, and the accurate determination of CO₂ emissions, electric range, fuel and energy consumption and energy efficiency.

More specifically, this proposal **replaces and simplifies previously separate emission rules for cars and vans** (Euro 6) and lorries and buses (Euro VI). The Euro 7 rules will apply to both light-duty (cars and vans) and heavy-duty vehicles (lorries and buses) sold in the EU. The proposal **merges** the successor norms to Euro 6 (Regulation (EC) No 715/2007) and Euro VI (Regulation (EC) No 595/2009) into **one single act**.

The new Euro 7 standards will ensure cleaner vehicles on European roads and improve air quality.

In addition, the new rules are fuel- and technology-neutral. This means that the same emission limits apply to all vehicles within the same category, regardless of the technology (for example, conventional internal combustion engine, hybrid or plug-in) or the fuel used (gasoline, diesel or others). They also apply to zero CO₂ emission vehicles (electric or fuel cell vehicles).

They will help to:

- **better control emissions of air pollutants from all new vehicles:** by broadening the range of driving conditions that are covered by the on-road emissions tests. These will now better reflect the range of

conditions that vehicles can experience across Europe, including temperatures of up to 45°C or short trips typical of daily commutes;

- **update and tighten the limits for pollutant emissions:** limits will be tightened for lorries and buses while the lowest existing limits for cars and vans will now apply regardless of the fuel used by the vehicle. The new rules also set emission limits for previously unregulated pollutants, such as nitrous oxide emissions from heavy-duty vehicles;

- **regulate emissions from brakes and tyres:** the Euro 7 standards rules will be the first worldwide emission standards to move beyond regulating **exhaust pipe emissions** and set additional limits for particulate emissions from brakes and rules on microplastic emissions from tyres. These rules will apply to all vehicles, **including electric ones**;

- ensure that **new cars stay clean for longer:** all vehicles will need to comply with the rules for a longer period than until now. Compliance for cars and vans will be checked until these vehicles reach 200 000 kilometres and 10 years of age. This doubles the durability requirements existing under Euro 6/VI rules (100 000 kilometres and 5 years of age). Similar increases will take place for buses and lorries;

- support the **deployment of electric vehicles:** the new rules will regulate the durability of batteries installed in cars and vans in order to increase consumer confidence in electric vehicles. This will also reduce the need for replacing batteries early in the life of a vehicle, thus reducing the need for new critical raw materials required to produce batteries;

- make full use of **digital possibilities:** Euro 7 rules will ensure that vehicles are not tampered with and emissions can be controlled by the authorities in an easy way by using sensors inside the vehicle to measure emissions throughout the lifetime of a vehicle.

In addition to the pollutants currently regulated, the proposal extends **ammonia** (a pollutant with a key role in the formation of urban smog) limits from lorries and buses also to cars and vans. The proposal also regulates **formaldehyde**, an irritant, carcinogenic gas, and nitrous oxide for lorries and buses. This pollutant is a potent greenhouse gas being regulated for the first time by Euro standards.

According to the Commission's proposal, the date for the entry into force of the new Regulation is 1 July 2025 for new light-duty vehicles (cars and vans), and 1 July 2027 for new heavy-duty vehicles (lorries and buses). Limited exceptions apply to vehicles constructed by **small volume manufacturers** to take care of specific technology constraints.