acea

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Position Paper

Review of CO2 emission standards regulation for heavy-duty vehicles

CONTEXT

In 2019, the European Union set CO2 reduction standards for heavy-duty vehicles. These standards require manufacturers to reduce the average fleet emissions of new vehicles in certain regulated vehicle groups by 15% (by 2025) and 30% (by 2030), compared to a 2019/2020 baseline.

These targets have triggered massive investments in zero-emission technologies and entail a profound restructuring of the commercial vehicle industry. This also impacts partners and customers in the transport and logistics value chain.

In order to comply with the targets, manufacturers depend heavily on policymakers and other industry sectors (such as providers of charging and refuelling infrastructure) living up to the same ambition level.

ACEA's truck and bus manufacturers are strongly committed to providing the right vehicles to move Europe's road transport industry to fossil-free solutions by 2040, with a focus on battery-electric and hydrogen-powered vehicles. However, commercial road transport is a B2B market that is driven by demand. Hauliers and operators invest in vehicles based on profitability considerations.

Ensuring that the conditions are in place so that transport operators will invest in – and can profitably operate – zero-emission vehicles is even more important than setting fleet emission targets for vehicle manufacturers. Europe should therefore aim for a pragmatic, progressive and technology-neutral approach that encourages scalable solutions, and which can serve as the global pacesetter for decarbonising road transport.

In this paper, ACEA sets out the industry's key messages on the proposed review of the regulation on CO2 reduction targets for heavy-duty vehicles.

KEY MESSAGES AT A GLANCE

1. World-leading CO2 targets require world-leading enabling conditions
2. The current state of enabling conditions is insufficient to meet even the existing 30% reduction target
3. An annual review of key enabling conditions is necessary
4. Proposed target levels for new vehicle groups from a 2025 baseline are unrealistic
5. Provisions for buses and coaches need to be adjusted
6. Flexibilities are necessary to mitigate uncertainties of the transition
7. Commercial vehicle manufacturers are committed to go fossil-free by 2040
8. Ambition levels for Euro 7 HDV and CO2 HDV must be aligned
9. The global competitiveness of the European commercial vehicle industry must be maintained

KEY MESSAGES

1. World-leading CO2 targets require world-leading enabling conditions

- In its revised regulation proposal, published on 14 February 2023, the European Commission sets out the most ambitious CO2 reduction targets for heavy-duty vehicles in the world. Fleet emission targets for vehicle manufacturers can only contribute to decarbonising the European road transport sector if they are complemented by an equally ambitious policy framework that establishes the necessary enabling conditions.
- The newly proposed CO2 targets risk causing massive disruptions in the transport and logistics value chain, unless policy makers implement a comprehensive enabling framework that matches the ambitions set for vehicle manufacturers, and which ensures that other players deliver in parallel.
- The global competitiveness of European commercial vehicle manufacturers could be endangered if crucial enabling factors continue to be constrained and remain a bottleneck. This would jeopardise the successful pathway to climate neutrality, which must also include Europe's transport and logistics value chain (which relies on numerous small and medium-sized transport operators).

2. The current state of enabling conditions is insufficient to meet even the existing 30% reduction target

- The current state of enabling conditions, including the lack of charging and refuelling stations suitable for heavy-duty vehicles, and the absence of effective carbon pricing measures, means that even the current CO2 reduction target (a 30% reduction by 2030) is out of reach. The proposed increase would require a massively accelerated roll-out of suitable charging and refuelling infrastructure, alongside decisive action to establish comprehensive carbon pricing measures in road transport.

CO2 TARGETS: ZERO-EMISSION VEHICLES AND INFRASTRUCTURE NEEDED

CO2 targets			-30%	-40%	-50%
Zero-emission vehicles needed in operation on EU roads (minimum)			280,000	390,000	465,000
	Battery electric vehicles (BEVs)		230,000	320,000	380,000
	Fuel-cell electric vehicles (FCEVs)		50,000	70,000	85,000
Infrastructure					
	Charging points	Total	34,000–42,000	48,000–59,000	53,000–65,000
		of which MCS chargers (>800 kW)	20,000–25,000	28,000–35,000	31,000–39,000
	H2 refueling stations	6 tons/day, or	500	650	700
		2 tons/day	1,500	2,000	2,200

- The newly proposed 2030 target (a 45% CO2 reduction compared to the 2019/2020 baseline) accelerates the required CO2 reductions by doubling the annual reduction rate compared to the current target. Achieving this would require significantly more zero-emission vehicles to be on the road at least two years earlier than currently anticipated. Specifically, the newly proposed target would require more than 400,000 zero-emission vehicles to be in operation within less than seven years, and close to 100,000 to be registered annually from 2030. This means more than one third of all new registrations would have to be zero-emission vehicles from 2030. This fleet would require over 50,000 publicly accessible chargers, of which 35,000 would have to be high-performance megawatt charging models. Some 700 hydrogen refilling stations would also be required.
- Today, almost no publicly accessible charging points or hydrogen refuelling stations that are suitable for trucks are operational. Furthermore, comprehensive carbon pricing measures to support the competitiveness of zero-emission vehicles are almost entirely absent.

3. An annual review of key enabling conditions is necessary

- A thorough analysis of the state of the enabling conditions, most importantly the charging and refuelling infrastructure, must become subject to an annual review process based on binding key performance indicators, starting in 2025. A review only in 2028, as proposed by the Commission, is far too late and, moreover, risks being delayed due to the change of EU legislature in 2029.
- The annual review process must include, among other elements, a thorough assessment of:
  - the roll-out of a suitable charging and refuelling infrastructure network in all member states;
  - the establishment of effective carbon pricing measures in all member states, including CO2-based road charges and the implementation of the revised Emission Trading System for road transport (ETS II) by 2027 at the latest;
  - other demand-side measures that support transport operators, and which will ensure they invest in zero-emission vehicles.
- If at any point during the annual review, crucial elements of the enabling conditions are not in line with the proposed CO2 targets, the targets should be reviewed, and non-compliance penalties for manufacturers must be reconsidered and potentially waived.
- Only vehicle manufacturers are subject to massive non-compliance penalties. No penalties of a similar level currently apply to other stakeholders in the transport and logistics value chain, even those sectors that are crucial for providing key enabling conditions. Vehicle manufacturers must not be held accountable should policymakers at European or member state level, public authorities or other industry

sectors fail to deliver on their responsibility to decarbonise heavy-duty road transport.

4. Proposed target levels for new vehicle groups from a 2025 baseline are unrealistic

- ACEA supports the inclusion of new vehicle segments in the CO2 standards regulation, such as medium lorries, heavy vehicles with special axle configurations and heavy buses, as long as their targets are based on the CO2 certification framework ((EU) 2017/2400).
- However, setting a reduction target of 45% for these new vehicle segments based on a 2025 baseline, ie within less than five years, is unrealistic. It would require a massive roll-out of zero-emission vehicles in vehicle configurations that have a much lower share (<25%) of the sector's CO2 emissions than the currently regulated vehicle groups.
- The regulation should provide a reasonable lead time and set the same annual reduction rate for the new vehicle groups that has been set for the currently regulated vehicle groups.

5. Provisions for buses and coaches need to be adjusted

- The regulation proposes a new 100% zero-emission sales mandate for urban buses by 2030. Looked at from the perspective of individual member states, the availability of financial resources to comply with a full ZEV mandate will need to be addressed by European institutions. A full ZEV mandate puts enormous pressure on public transport operators to adjust their investment plans and ensure that the necessary charging/refuelling infrastructure is in place at depots. It risks overstretching the capabilities of many local transport operators and public transport authorities across the EU. Furthermore, it could lead to disruptive pre-buy effects that are detrimental to a successful decarbonisation pathway. It is therefore up to the individual member states and the European Commission to provide the necessary financial resources to enable public transport companies to fulfil this mandate.
- Requiring interurban buses and coaches to achieve CO2 reductions of 45% compared to a 2025 baseline (ie within five years) is unrealistic, particularly as the regulation does not allow manufacturers to cross-compensate lower reductions for coaches with higher reduction levels for urban buses.
- As coaches can only be regulated from a 2025 baseline, they should get a reasonable lead time and the same ambitious reduction rate per year as has been set for the currently regulated vehicle groups.
- The definition of urban buses that fall under the ZEV mandate should be reassessed. Vehicles with predominantly interurban mission profiles should be

excluded from the ZEV mandate for urban buses, and instead be included in the CO2 reduction targets. As is the case for coaches, their mission profiles are more demanding and diverse. As a result, they are significantly more difficult to move to zero-emission powertrains.

6. Flexibilities are necessary to mitigate uncertainties of the transition

- ACEA welcomes the proposed extension of the credit/debit system beyond 2030, but calls for further improvements. A functioning credit/debit system is an important, albeit small, element which can help manufacturers in the early stages of the deployment of zero-emission vehicles, without reducing the ambition level or the CO2 emission reductions that can be achieved. However, it cannot address shortcomings in the establishment of effective enabling conditions, and is therefore not capable of effectively mitigating the uncertainties of the transition.

7. Commercial vehicle manufacturers are committed to go fossil-free by 2040

- Commercial vehicle manufacturers are committed to doing their part by providing the right vehicles to move Europe's road transport industry to fossil-free solutions by 2040. The newly proposed 2040 target (a 90% reduction compared to the 2019/2020 baseline) will lead to the deep decarbonisation of the road transport sector, focusing strongly on zero-emission powertrains, including battery-electric and hydrogen-powered vehicles.
- At the same time, it is clear that the internal combustion engine (ICE) will continue to play a long-term role in heavy-duty applications. The decarbonisation of all energy carriers – including road transport fuels, electricity and hydrogen – is a crucial cornerstone of the successful transition to climate neutrality.

8. Ambition levels for Euro 7 HDV and CO2 HDV must be aligned

- Close coordination between the recent CO2 and Euro 7 proposals for heavy-duty vehicles is essential with regard to the content of the regulations, the timelines for their finalisation and their implementation dates.
- The Euro 7 regulation for heavy-duty vehicles has been justified with unrealistically low assumptions about the required market uptake of zero-emission vehicles.
    - While the Euro 7 regulation projects a share of new diesel-powered vehicles (including hybrids and PHEVs) of more than 41% in 2040, the CO2 regulation would require manufacturers to register no more than 12% of new diesel-powered vehicles by 2040. These projections are obviously contradictory and lead to an unjustified level of stringency for Euro 7.

- Therefore, the European Commission must reassess its assumptions for the Euro 7 HDV regulation and revise the proposed stringency of the Euro 7 HDV exhaust emissions (and related test methods) to a level which does not distort the huge efforts and investments that will have to be made in the context of the CO2 regulation. The ACEA proposal of July 2021 for a heavy-duty Euro 7 regulation should be used as a basis for this reassessment.

9. The global competitiveness of the European commercial vehicle industry must be maintained

- With the Green Deal Industrial Plan (GDIP), the EU Commission rightly recognises the urgent need for a robust industrial strategy for Europe. Such a strategy should set a policy framework which actively addresses new geopolitical challenges and attractive investment policies in other regions of the world, such as the US Inflation Reduction Act. In its response, Europe must avoid protectionist measures. Instead, it must create equally attractive conditions for green investments and promote strategic global alliances.
- Europe currently has no significant supply of the critical raw materials (CRMs) needed for zero-emission technologies. With its very ambitious climate goals, Europe needs to secure unrestricted access to raw materials at competitive prices. According to projections by the World Bank, global demand for CRMs will grow by 500% by 2050.
- Over the coming years, a significant increase in the demand for batteries and associated raw materials is expected, while in the short term (at least until 2030) the supply of batteries to comply with more stringent CO2 targets will rely on increased imports from non-EU countries. The development of a European industrial value chain, including battery and electrolyser production capacity, is therefore of crucial importance for a successful transition pathway. Accordingly, the Critical Raw Materials Act must focus on domestic sourcing, strategic international cooperation, and the diversification of supply to prevent new dependencies on non-EU actors. Protectionist measures, especially from non-EU actors, and undue regulatory burdens, could significantly endanger both the decarbonisation pathway and the global competitiveness of the European commercial vehicle industry.

ABOUT THE EU AUTOMOBILE INDUSTRY

- 13.0 million Europeans work in the auto industry (directly and indirectly), accounting for 7% of all EU jobs
- 11.5% of EU manufacturing jobs – some 3.4 million – are in the automotive sector
- Motor vehicles are responsible for €374.6 billion of tax revenue for governments across key European markets
- The automobile industry generates a trade surplus of €79.5 billion for the European Union
- The turnover generated by the auto industry represents almost 8% of the EU's GDP
- Investing €58.8 billion in R&D per year, automotive is Europe's largest private contributor to innovation, accounting for 32% of the EU total

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