

Opinion of the European Economic and Social Committee on the ‘Proposal for a Regulation of the European Parliament and of the Council on the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles’

(COM(2017) 279 *final* — 2017/0111 (COD))

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Rapporteur: **Dirk BERGRATH**

Co-rapporteur: **Mihai MANOLIU**

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Legal basis	Article 192(1) of the Treaty on the Functioning of the European Union
Section responsible	Single Market, Production and Consumption
Adopted in section	4.10.2017
Adopted at plenary	18.10.2017
Plenary session No	529
Outcome of vote (for/against/abstentions)	188/0/3

1. Conclusions and recommendations

1.1. In the EESC's view, job creation, as well as investment aimed at reindustrialising Europe, economic growth, the transition to clean energy, new business models cutting-edge technologies, environmental protection and public health should be key objectives of EU policy.

1.2. The EESC believes that transport operators have missed opportunities to reduce their fuel bills, which account for a quarter of their operating costs. Fuel efficiency is a fundamental criterion in purchasing decisions, and reducing fuel consumption would help to reduce the fuel import bill. The EU needs certification, fuel consumption assessment, and emission and consumption standards, and this should drive innovation. Fierce competition between vehicle manufacturers has been generated by policies and plans for electric vehicles. The transport sector needs to make its contribution to reducing emissions, along with construction, agriculture and waste.

1.3. EU action is justified in view of the cross-border impact of climate change and the need to safeguard single markets in fuel, vehicle and transport services. The fragmentation of the transport market and loss of market transparency, differences in legislation and divergent policy practices on monitoring, and the lack of a common database containing monitoring data all have significant social and economic effects.

1.4. The EESC welcomes the fact that the proposal for a Regulation makes it easier to monitor and disseminate CO₂ readings of HDVs newly registered in the EU, and provides customers — most of them SMEs — with clear information concerning consumption.

1.5. The EESC welcomes the choice in the proposal for a Regulation of the third option of combined reporting, as this safeguards the digital flow of information, means that data are collected at both national and EU level, and entails low administrative costs.

1.6. The EESC emphasises that significant markets such as the United States, Canada, Japan and China have in recent years implemented certification and fuel efficiency measures in the form of fuel consumption and/or emission standards, in order to stimulate innovation and rapidly improve vehicle efficiency. The competitiveness of European manufacturers of heavy-duty vehicles therefore depends on meeting these standards.

1.7. While it is true that the market basically puts pressure on manufacturers to keep reducing the fuel consumption of lorries in the EU, SME-dominated transport companies often face difficulties in financing the higher purchasing price of more fuel-efficient HDVs.

1.8. The EESC recommends that when setting potential CO₂ limits for heavy-duty vehicles, the Commission should aim to strike a balance between targets that can be achieved in the short to medium-term and the longer-term goal of zero-emission road transport. This means that innovation in existing technology should be stimulated, without constraining investment in zero-emission vehicles.

1.9. In this context, the EESC feels that the recommendations it made in its opinion on the final report of the CARS 21 High Level Group could also be applied for heavy-duty vehicles, especially when it comes to the time frame for implementation.

1.10. The EESC underlines the role of public investment and regulation in reducing road transport emissions, including those produced by heavy goods transport.

1.11. The EESC stresses that any regulatory action must go hand in hand with more policy measures to reduce demand for road transport — including for heavy goods transport — by shifting to other modes (rail, inland waterways, etc.) that produce fewer greenhouse gas emissions.

2. Introduction

2.1. The proposal for a Regulation aims to lay down the requirements for the monitoring and reporting of CO₂ emissions from and fuel consumption of new heavy-duty vehicles registered in the European Union. It applies only to heavy-duty vehicles designed and constructed for the carriage of passengers or goods and trailers ⁽¹⁾.

2.2. Transport and mobility are vitally important for Europe's economy and competitiveness. This importance is also reflected in the wide variety of other policy frameworks that strongly influence this sector. Delivering on the priorities of the Energy Union, the Digital Single Market and the Agenda for Jobs, Growth and Investment will in each case benefit mobility and the transport sector.

2.3. In October 2014, the EU Heads of State and government ⁽²⁾ set a binding goal of reducing emissions produced across the EU's entire economy by at least 40 % compared to 1990 levels by 2030. This target is based on global projections that comply with the medium-term timescale of the Paris Agreement on climate change (COP 21) ⁽³⁾. The Commission has announced that it will introduce fuel efficiency standards for new heavy-duty vehicles.

2.4. In 2015, according to industry data, lorry exports generated a trade balance surplus of EUR 5,1 billion. This sector is part of an automotive industry which generates 12,1 million direct and indirect jobs in Europe, equivalent to 5,6 % of total EU employment.

⁽¹⁾ Vehicle categories as defined in Directive 2007/46/EC as last amended by Regulation (EC) No 385/2009: M1, M2, N1 and N2 with a reference mass exceeding 2 610 kg not falling within the scope of Regulation (EC) No 715/2007 of the European Parliament and of the Council, all vehicles in categories M3 and N3, and vehicles in categories O3 and O4.

⁽²⁾ European Council conclusions of 24 October 2014, EUCO 169/14, p. 2.

⁽³⁾ FCCC/CP/2015/L.9/Rev.1.

2.5. The Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy (February 2015) ⁽⁴⁾ identified the transition to an energy-efficient, decarbonised transport sector as a key area for action. Spurred on by the Paris Agreement on climate change, the measures set out in the Strategy for Low-Emission Mobility (July 2016) ⁽⁵⁾ are now being implemented. Infrastructure investments as part of the Investment Plan for Europe should stimulate the creation of future clean, competitive and connected mobility in Europe.

2.6. Between 1990 and 2014, CO₂ emissions in the EU from commercial vehicles increased markedly faster than those from cars. CO₂ emissions from commercial vehicles rose by some 25 %; emissions from cars by only around 12 %. Lorries and buses now account for around a quarter of road-transport-related CO₂ emissions in the EU. Their share of emissions continues to grow, as increasingly stringent CO₂ limits are reducing emissions from cars and vans.

2.7. Currently, a typical European 40-tonne 4×2 tractor unit in a 'long-haul test cycle' consumes around 33,1 l of fuel per 100 km on roads and highways. A typical European 12-tonne 4×2 distribution truck in an 'urban delivery test cycle' consumes around 21,4 l of fuel per 100 km ⁽⁶⁾.

2.8. Heavy-duty vehicles (HDVs) are usually manufactured in several stages; generally, only tailor-made products are available. The chassis is produced by one manufacturer and then, at the next stage, receives a body from another manufacturer. This means that several different manufacturers have an impact on the completed vehicle's fuel consumption and thus on its CO₂ emissions.

2.9. Purchasers of heavy-duty vehicles are mostly freight transport operators. They can experience fuel costs greater than a quarter of their operational costs and rank fuel efficiency as their top purchase criterion. While the fuel efficiency of heavy-duty vehicles has improved over recent decades, many of the more than half a million transport companies, which are to a large extent SMEs, do not yet have access to standardised information with which to evaluate fuel efficiency technologies, compare lorries in order to make the best-informed purchasing decisions, and reduce their fuel costs. This is compounded by the absence of a commonly agreed methodology for measuring fuel consumption.

2.10. The lack of market transparency translates into less pressure for EU HDV manufacturers to make further efforts to improve vehicle efficiency and invest in innovation in such competitive global market. There is a consequent risk that the EU manufacturing sector could lose its current lead in vehicle fuel efficiency.

2.11. Transparency in the fuel and CO₂ emission performance of vehicles would also stimulate competition inside the EU market, where in 2016 the Commission identified a cartel among manufacturers of lorries that had been operating between 1997 and 2011.

3. The proposal for a Regulation

3.1. This proposed Regulation is part of the *Europe on the move* package, intended to: improve road safety; promote fairer tolling; reduce CO₂ emissions, air pollution, traffic congestion and red tape for businesses; combat illegal employment; and ensure decent conditions and rest periods for workers.

3.2. In the long term, these measures will have a positive effect far beyond the transport sector: they will promote employment, growth and investment, strengthen social justice, increase consumer choice and provide Europe with a clear path towards reducing emissions.

⁽⁴⁾ COM(2015) 80 final.

⁽⁵⁾ COM(2016) 501 final.

⁽⁶⁾ Delgado, O., Rodríguez, F., Muncrief, R., *Fuel efficiency technology in European heavy-duty vehicles: Baseline and potential for the 2020-2030 timeframe*, International Council on Clean Transportation, ICCT White Paper, Berlin, July 2017.

3.3. Over the next 12 months this package will be supplemented by further proposals which will include post-2020 emission standards for cars and vans, as well as — for the first time — for heavy-duty vehicles. These proposals will give a further boost to innovation, enhance competitiveness, cut CO₂ emissions, improve air quality, public health, and road safety.

3.4. The knowledge gap will be reduced through simulation software — an efficient tool for calculating fuel consumption and costs. The new (type-approval) certification regulation on the determination of CO₂ emissions will be based on individual performance data and a certified process of sourcing and managing the input data.

3.5. This proposal for a Regulation implements the 2014 Communication on a strategy for reducing heavy-duty vehicles' fuel consumption and CO₂ emissions. The HDV strategy announced an implementing measure setting out the procedure for the certification of CO₂ emissions, calculated by the VECTO simulation tool, from new HDVs placed on the EU market, and a legislative proposal on monitoring and reporting these emissions.

3.6. Given that VECTO is only a simulation tool, the second package should include on-road fuel-consumption testing, as the Commission intends to do for cars and light commercial vehicles. A methodology needs to be developed for differentiating infrastructure use charges for new HDVs in line with CO₂ emissions (review of the Eurovignette Directive and the Energy Efficiency Directive).

3.7. The EESC calls on the European Commission and the Member States to agree to guarantee that third parties (research institutes, transport companies, NGOs) will have access to the official VECTO data on fuel consumption so that the figures can be cross-checked through independent testing. Quality control and verification of the submitted data needs to be carried out in order to address any gaps or irregularities. These checks should be carried out in compliance with fundamental rights.

3.8. The proposal also implements the 2016 European Strategy for Low-Emission Mobility, whose goals include reducing greenhouse gas emissions in road transport by at least 60 % in 2050 compared to 1990 levels and drastically reducing the emission of air pollutants. The strategy also states that the Commission will speed up analytical work on design options for CO₂ emission standards with a view to preparing a legislative proposal during this Commission's term of office.

3.9. For monitoring purposes, starting in 2020, the competent authorities of the Member States must submit data about new vehicles registered in the EU for the first time during the preceding year, and manufacturers of heavy-duty vehicles must submit data on vehicles with a production date that falls during the preceding calendar year. This annual reporting is due by 28 February of each year. The type of data to be submitted is set out in Parts A and B of Annex I to the proposal for a Regulation.

3.10. The European Environment Agency (EEA) is to manage, on the Commission's behalf, a central database of the data submitted that will be publicly available (except for certain sensitive data).

3.11. The competent authorities and manufacturers will be responsible for the accuracy and quality of the data they submit. However, the Commission can undertake its own verification of the quality of the data submitted and, where appropriate, take the necessary measures to correct the data published in the central register. There are no direct reporting obligations for SMEs or micro-enterprises.

3.12. The Commission will produce an annual report with its analysis of the data transmitted by Member States and manufacturers for the preceding calendar year. The analysis must include, as a minimum, figures on average fuel consumption and CO₂ emissions of the heavy-duty vehicle fleet of the Union as a whole, as well as that of each manufacturer. It must also, where available, take into account data on the uptake of new and advanced CO₂ reducing technologies.

3.13. The Commission is empowered by way of delegated acts to amend the data requirements set out in the annexes to the proposal for a Regulation, and to make changes to the monitoring and reporting process.

4. General comments

4.1. As in previous opinions on Commission legislative proposals on reducing CO₂ emissions, the EESC confirms its support for all EU initiatives that aim to achieve specific targets for reducing greenhouse gas emissions, as this is a key part of combating climate change. To this end, no reasonable measure to also reduce commercial vehicle emissions may be overlooked, as these vehicles make up over 10 % of the vehicle fleet.

4.2. The instrument chosen — an EU Regulation — is, moreover, the most apt to ensure immediate compliance with the provisions adopted and to avoid distortion of competition that could have implications for the internal market.

4.3. The data on CO₂ emissions and fuel consumption are produced using simulation software called VECTO (Vehicle energy consumption calculation tool).

4.3.1. The decision to develop this tool was made after considering other options for test procedures, including engine test beds, chassis dynamometer testing and on-board tests in real traffic with portable emission measurement systems (PEMS). The key reasons for selecting simulation rather than any of the other testing procedures were:

1. comparability: test results for different types of HDVs are directly comparable;
2. cost efficiency: the high cost of testing facilities compared to simulation;
3. capacity to deal with high variability: HDV production series are very small since vehicles are to a large extent customised to end-users' prescriptions;
4. reproducibility: simulation offers the highest scores for reproducibility of tests;
5. accuracy: small savings from single component optimisations can be detected;
6. comprehensiveness: simulation can be used to optimise the total vehicle configuration in order to achieve lower fuel consumption, since it includes all components (cabin, tyres, engine, transmission, etc.). This approach was confirmed in the 2014 HDV strategy.

4.3.2. The obligation to process and make VECTO data available for all new heavy-duty vehicles enables buyers both to compare the different vehicle models, fuel consumption technologies and various vehicle bodies — e.g. crane, refrigerated compartment — and to compare different combinations of the individual components. Unlike cars, different heavy-duty vehicle models are used in very different ways according to their bodies, leading to a wide divergence in fuel consumption and CO₂ emissions. In addition, the ability to compare increases competition both between vehicle manufacturers and between vehicle body manufacturers.

4.3.3. The EESC welcomes the fact that the proposal for a Regulation makes it easier to monitor and disseminate CO₂ readings of HDVs newly registered in the EU, and provides customers — most of them SMEs — with clear information concerning consumption.

4.3.4. The EESC is aware that measuring real driving emissions (RDE) by means of a portable emissions measurement system (PEMS) is preferable to measuring emissions using a chassis dynamometer or — as proposed here — using simulation software. Following an introductory period, and after taking stock of experience with the VECTO system, the Commission should analyse whether RDE tests for heavy-duty vehicles are feasible, and if so how they can be done.

4.4. During the impact assessment, the Commission tested three options for data collection and reporting to the EEA: (1) reporting by national authorities; (2) reporting by manufacturers of heavy-duty vehicles; and (3) combined reporting by national authorities and manufacturers.

4.4.1. The EESC welcomes the choice in the proposal for a Regulation of the third option of combined reporting, as this safeguards the digital flow of information, means that data are collected at both national and EU level, and entails low administrative costs.

4.4.2. The EESC is pleased to note that data submitted to the Commission by the competent national authorities and the manufacturers of heavy-duty vehicles are to be publicly available. For the sake of protecting data and safeguarding competition, the EESC also welcomes the proposal that neither the vehicle identification number (VIN) nor manufacturing data related to certain supplied parts (transmission, axles and tyres) are to be made public.

4.5. In the EESC's view, it would be worth reflecting on CO₂-based road-user charges for heavy-duty vehicles. To enable this, data from the central register (vehicle identification number and CO₂ emissions readings) would have to be linked with registration data (number plate) and then shared with those who administer road-user charges.

4.5.1. The EESC has on several occasions⁽⁷⁾ endorsed the Commission's intention to introduce a uniform system at European level for road-user charges based on the polluter-pays principle. A publicly-managed uniform system for road-user charges would also be useful from the perspective of data protection.

4.6. The Commission views its proposal for a Regulation as a necessary step towards implementing and enforcing future CO₂ emission standards for heavy-duty vehicles. A monitoring and reporting system is particularly necessary for assessing compliance with such future standards, as is already the case for cars and vans.

4.6.1. There have been binding CO₂ limits for passenger cars in the EU since 2009, and for vans since 2011. Meanwhile, heavy-duty vehicles have not hitherto been subject to comparable CO₂ limits. However, a Commission legislative proposal is expected in 2018 that will introduce mandatory CO₂ limits for these vehicles as well.

4.6.2. Significant markets such as the United States, Canada, Japan and China have in recent years implemented certification and fuel efficiency measures in the form of fuel consumption and/or emission standards, in order to stimulate innovation and rapidly improve vehicle efficiency. The competitiveness of European manufacturers of heavy-duty vehicles therefore depends on meeting these standards.

4.7. It is true that the market basically puts pressure on manufacturers to keep reducing the fuel consumption of lorries in the EU: fuel costs represent by far the largest single item of expenditure (around 30 %) in the cost structure of long-distance road haulage. Transport companies, as buyers of heavy-duty vehicles, therefore have an interest in lorries that consume as little fuel as possible.

4.7.1. On the other hand, experience has shown that non-binding targets and market forces alone are not sufficient to significantly reduce new vehicles' fuel consumption and, in turn, CO₂ emissions.

4.7.2. The transport sector is dominated by SMEs. One of the most important issues facing SMEs is their difficulty accessing finance. Hence, transport companies often face difficulties in financing the higher purchasing price of more fuel-efficient HDVs.

4.7.3. The EESC recommends that when setting potential CO₂ limits for heavy-duty vehicles, the Commission should aim to strike a balance between targets that can be achieved in the short to medium term and the longer-term goal of zero-emission road transport. This means that innovation in existing technology should be stimulated, without constraining investment in zero-emission vehicles.

4.7.4. In this context, the EESC feels that the recommendations it made in its opinion on the final report of the CARS 21 High Level Group⁽⁸⁾ could also be applied for heavy-duty vehicles. Those recommendations included giving industry players the time to fully develop the technologies needed to meet more stringent requirements without products becoming significantly more expensive as a result, and thus ultimately slowing down the renewal of the vehicle fleet.

⁽⁷⁾ EESC-2017-02887 (see page 181 of the current Official Journal), EESC-2017-02888 (see page 188 of the current Official Journal), EESC-2017-03231 (see page 195 of the current Official Journal).

⁽⁸⁾ OJ C 10, 15.1.2008, p. 15.

4.7.5. In this context, the United States' regulation on new HDVs, tractor trucks, trailers, and engines can be regarded as a positive example of anticipatory implementation. There, a second phase of regulations will be implemented from model years 2018 to 2027, building upon initial Phase 1 standards that cover model years 2014 to 2018.

4.8. The EESC underlines the role of public investment and regulation in reducing road transport emissions, including those produced by heavy goods transport.

4.8.1. One future option might be the 'e-highway' system, where hybrid trucks would be powered by overhead power lines on key arterial freight corridors in a similar way to trams, trains and trolleybuses today. When connected to the powerline, trucks could run fully electrically. Once driving off the powered track, the vehicle would run on the diesel or electric engine via on-board battery capacity.

4.8.2. Truck platooning has the potential to reduce CO₂ emissions by around 10 %. Trucks closely follow each other at a set distance, using state-of-the art connectivity technology and driving support systems. The vehicle at the head of the convoy acts as the leader. If it brakes, all the other trucks in the platoon also brake. Reaction time is virtually one-on-one for all trucks. Platooning results in lower fuel consumption and increased safety, but regulatory changes might be needed.

4.8.3. Directive (EU) 2015/719⁽⁹⁾ finally introduced new amendments to heavy-duty vehicle regulations that would permit more aerodynamic vehicle designs with improved energy efficiency and emissions behaviour to be introduced onto European roads. The amendments include derogations on the maximum total length of HDVs, allowing for existing trucks to be retrofitted with rear aerodynamic flaps and new trucks to feature these additional aerodynamic elements, as well as rounder, longer cabin designs. However, manufacturers of trailers report problems with the registration authorities in applying these new regulations.

4.9. The EESC stresses that any regulatory action must go hand in hand with more policy measures to reduce demand for road transport — including for heavy goods transport — by shifting to other modes (rail, inland waterways, etc.) that produce fewer greenhouse gas emissions.

Brussels, 18 October 2017.

The President
of the European Economic and Social Committee
Georges DASSIS

⁽⁹⁾ Directive (EU) 2015/719 of the European Parliament and of the Council of 29 April 2015 amending Council Directive 96/53/EC laying down for certain road vehicles circulating within the Community the maximum authorised dimensions in national and international traffic and the maximum authorised weights in international traffic (OJ L 115, 6.5.2015, p. 1).