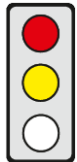


KEY ISSUES

Objective of the Regulation: The CO₂ emissions and fuel consumption of new lorries and buses (“heavy duty vehicles”, HDV) are to be monitored, reported and published, EU wide.

Affected parties: Vehicle manufacturers, transport companies, registration authorities



Pro: The parallel reporting obligations of Member States and manufacturers is a cost-effective way of ensuring that CO₂ emissions from HDVs can be attributed to the respective country of registration.

Contra: (1) The Commission’s proposal to establish CO₂ limits prior to passing this Regulation means that regulatory requirements are being put in place based on insufficient data.

(2) The publication of extensive data on vehicle components, features and technologies for reducing fuel consumption, weakens the competitiveness of European manufacturers on markets outside the EU.

(3) The exceptions to the publication obligation are not sufficient to guarantee EU manufacturers a level playing field.

The important passages in the text are indicated by a line at the side

CONTENT

Title

Proposal COM(2017) 279 of 31 May 2017 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**

Brief Summary

► Context and objectives

- Lorries and buses (“heavy duty vehicles”, HDVs) cause, in the EU (p. 2-3)
 - 5% of all CO₂ emissions,
 - 20% of CO₂ emissions in the transport sector,
 - 25% of CO₂ emissions in the road transport sector.
- A further increase in CO₂ emissions from HDVs is expected by 2030 (Recital 4).
- In its proposal for an amendment to the Road Charging Directive [COM(2017) 275, see [cepPolicyBrief 24/2017](#)] the Commission proposes the introduction of CO₂-dependent road-use charges for HDVs. In exchange, the process of grading according to EURO air pollutant classes will be abolished.
- For the first time, the Commission is proposing CO₂ limits on HDVs for the beginning of 2018 [Impact Assessment SWD(2017)188, p. 6].
- This proposal for a Regulation will enable the monitoring and registration of fuel consumption and the resulting CO₂ emissions produced by HDVs in order that (p. 4)
 - CO₂ emissions can be taken into account when establishing road-use charges,
 - the planned CO₂ limits for HDVs can be implemented and enforced,
 - potential purchasers of HDVs are better informed about their fuel consumption due to “full market transparency” and, with increased competition, manufacturers are encouraged to innovate.

► Scope

- The proposed Regulation applies (Art. 2)
- to new HDVs – lorries, buses, vans, SUVs – over 2.61 t, unless they are already subject to the corresponding Regulation for cars and light duty vehicles [(EC)715/2007] and
 - to trailers over 3.5 t.

► VECTO: Calculation of CO₂ emissions and fuel consumption

- In conjunction with HDV manufacturers, the Commission has developed VECTO simulation software [“Vehicle Energy Consumption Calculation Tool”; see also Communication COM(2014) 285, see [cepPolicyBrief 40/2014](#)]. VECTO data include
 - CO₂ emissions and fuel consumption for various usage profiles (output data),
 - vehicle specifications required for calculation (input data).

- Although manufacturers have the VECTO data necessary for vehicle registration in digital form, some national registration authorities only have it on paper [SWD(2017) 188, p. 30].
- VECTO is currently only usable for lorries over 7.5 t. The upgraded version of VECTO for buses is to be completed in 2017 and then developed for further types of HDV. [SWD(2017) 188, p. 56 et seq.]

► **Reporting obligations for Member States**

- Every year from 2020, Member States must register data with the Commission, by 28 February, for all HDVs which they registered for the first time in the previous calendar year, or which were registered less than three months previously in a third country (Art. 4 in conjunction with Annex II).
- This data means (Annex I, Part A):
 - the vehicle identification number (VIN),
 - manufacturer name and make of vehicle,
 - details of drive mechanism, such as electric or hybrid and/or fuel type and construction.

► **Reporting obligations for Manufacturers**

- Every year from 2020, manufacturers must register 73 categories of data with the Commission, by 28 February, for all HDVs which they have manufactured in the previous year (Art. 5 in conjunction with Annex II).
- These include (Annex I, Part B):
 - data also to be reported by the Member States: VIN, manufacturer name and make of vehicle,
 - CO₂ emissions and fuel consumption according to VECTO,
 - manufacturer name and make of major vehicle components such as gears, axles and tyres,
 - Comprehensive VECTO input data:
 - specification of important vehicle components such as engine, gears, axles and tyres,
 - additional vehicle characteristics such as weight and air resistance,
 - auxiliary units such as cooling systems, air conditioning and hydraulic pumps as well as
 - “advanced technologies” for reducing fuel consumption and CO₂ emissions.

► **Central data register**

- Using the VIN, the Commission must keep the data reported by the Member States and manufacturers in a Central Register, (Art. 6 (1)). This allows vehicle data from the manufacturer to be attributed to the respective country of registration [SWD(2017) 188, p. 6].
- The data in the Central Register is generally publicly accessible with the exception of “sensitive data” (Art. 6 (1), Recital 10):
 - the manufacturer names and makes of vehicle components in order to safeguard “fair competition”,
 - the VIN in order to protect “personal data”.

► **Data quality**

- Member States and manufacturers are responsible for the correctness and quality of the data they report and must inform the Commission of any errors without delay (Art. 7 (1)).
- Where the Commission finds errors in the data following its own quality checks, or is informed of errors, it must correct the Central Register (Art. 7 (2) and (3)).

► **Report**

- The Commission must analyse the data provided (Art. 8 (1)).
- It must determine the average CO₂ emissions and the average fuel consumption of the HDV fleet, both for every manufacturer and for the EU as a whole (Art. 8 (2)).
- It must publish the results of its analysis in the annual report to the Energy Union [Proposal for a Regulation on Governance of the Energy Union [COM(2016) 759, Art. 29; see [cepPolicyBrief 17/2017](#)] (Art. 8 (1)).

Main Changes to the Status Quo

- Until now, CO₂ emissions for new HDVs have not been recorded EU wide. Now Member States and manufacturers must register the data on new registrations, fuel consumption and CO₂ emissions with the Commission.
- New: a public Central Register will be introduced for the purpose of monitoring the CO₂ emissions and fuel consumption of new HDVs in the EU.
- New: the Commission’s obligation to publish the results of its analyses of the CO₂ emissions and fuel consumption of the HDV fleets.

Statement on subsidiarity by the Commission

In view of the cross-border impact of climate change and the need to safeguard the single markets for fuel, vehicles and transport services, EU action is justified. Since new HDVs are often manufactured in Member States other than the country in which they are registered, the monitoring of CO₂ emissions and fuel consumption at

national level would require extensive cooperation between the individual Member States. Since homogeneous monitoring would not be guaranteed due to differences in legislation and practices, and the data would be difficult to compare, there is a risk that, without EU regulation, the internal market would become fragmented and lose market transparency (p. 5).

Policy Context

By 2030, the EU wants to bring down all CO₂ emissions by at least 40% as compared with 1990 levels (European Council, October 2014, see [ceplnput 2/2015](#)). For this purpose, CO₂ emissions in sectors that – like transport – are not covered by EU emissions trading, are to fall by 30% compared with 2005. By 2050, the Commission wants to reduce the CO₂ emissions in the transport sector by at least 60% as compared with 1990 levels, as it has repeatedly confirmed – Transport White Paper [COM(2011) 144, see [cepPolicyBrief](#)], “Strategy for reducing the fuel consumption and CO₂ emissions of heavy duty vehicles” [COM(2014) 285, see [cepPolicyBrief 40/2014](#)] and “Strategy for Low-Emission Mobility” [COM(2016) 501, see [cepPolicyBrief 30/2016](#)]. In the latter, the Commission also calls for the “increased” use of road-use charges to protect the climate. For this purpose, the “Road Package”, published by the Commission on 31 May 2017, also contains, in addition to the aforementioned proposal for a Regulation, a proposal on taking account of CO₂ emissions when establishing road-use charges [COM(2017) 275, see [cepPolicyBrief 24/2017](#)]. A legislative proposal on CO₂ limits for HDVs has been announced for the first quarter of 2018.

Legislative Procedure

31 May 2017	Adoption by the Commission
Open	Adoption by the European Parliament and the Council, publication in the Official Journal of the European Union, entry into force

Options for Influencing the Political Process

Directorates General:	Transport
Committees of the European Parliament:	Environment, Public Health and Food Safety (leading), Rapporteur: Damiano Zoffoli (S&D Group, IT);
Committees of the German Bundestag:	Transport (leading)
Decision-making mode in the Council:	Qualified majority (acceptance by 55% of Member States which make up 65% of the EU population)

Formalities

Competence:	Art. 91 TFEU (Transport)
Form of legislative competence:	Shared competence (Art. 4 (2) TFEU)
Procedure:	Art. 294 TFEU (ordinary legislative procedure)

ASSESSMENT

Economic Impact Assessment

The incorporation of HDVs in EU climate policy is appropriate in view of the increasing level of CO₂ emissions caused by transport - and in particular road haulage. However, **incorporating road transport, including HDVs, in the European Emissions Trading System** (EU-ETS) would not only be significantly more effective – both economically and in terms of climate policy – than the planned introduction of CO₂ dependent road-use charges for HDVs and CO₂ limits (see [ceplnput 05/2015](#)), it **would also render the planned bureaucratic and interventionist registration obligations** under this Regulation completely **superfluous**.

Inclusion in the EU ETS would ensure that the actual fuel consumption and thus the actual emissions would be apportioned directly to the individual vehicle responsible via higher fuel prices. This direct pricing of CO₂ emissions would ensure inter alia a demand for and supply of vehicles, on the market, which are correspondingly more fuel-efficient and have lower CO₂ emissions. As CO₂ pricing is based on the vehicle's actual and not just potential fuel consumption and CO₂ output, there would be an incentive for using it and driving it in a way which is more fuel efficient and produces less CO₂. This is not the case for CO₂-dependent road-use charges or CO₂ limits because they are based on abstract values and thus only take a very rough account of the actual CO₂ emissions. In addition, taking account of CO₂ emissions when setting road-use charges would result in a very complex tariff structure and displace the successful grading procedure, based on EURO pollutant classes, which in those countries which have introduced it, has resulted in a cleaner fleet (see [cepPolicyBrief 24/2017](#)). CO₂ limits would also have the disadvantage that they only apply to newly registered vehicles.

Since the Commission is nevertheless determined to introduce CO₂-dependent road-use charges **and** CO₂ limits this proposal for a Regulation can be assessed as follows:

The Commission's proposal to establish CO₂ limits for HDVs as early as the beginning of 2018 – i.e. realistically **before the adoption of this Regulation means that regulatory requirements are being put in place based on insufficient data**. The Commission should therefore wait at least until 2020 when the first relevant data has been entered into the Central Register and analysed. It will then be easier to decide on the usefulness and extent of CO₂ limits.

With regard to the CO₂-dependent road-use charges and CO₂ limits, being pushed by the Commission, as well as the envisaged market transparency, it is crucial that the potential fuel consumption and CO₂ output for various HDVs is determined objectively. However, by contrast with cars, which are relatively standardised, the wide variety of superstructures and uses makes it impossible to use a random sample of tests in order to draw conclusions about the CO₂ output of a model either on the test bed or in reality because the fuel consumption and CO₂ output of HDVs depend on their precise specifications. The relevant factors in this regard are air resistance, which is dependent on the superstructures, weight, engine, roll resistance of the tyres, gears, axles and auxiliary systems such as cooling or hydraulics. VECTO solves this problem by measuring these factors every time there is a type-approval for specific HDVs, and storing them in the software. From this, VECTO calculates fuel consumption and CO₂ emissions for standardised usage profiles – long-distance, regional or local transport –, vehicle configurations – with or without trailer – and various loads. The values thus determined for fuel consumption and CO₂-output vary from the actual measurements by less than 3% [see SWD(2017) 188, p. 12].

Thus, **the VECTO simulation software on its own already brings about sufficient market transparency for purchasers of HDVs and increases competitive pressure on manufacturers to offer HDVs that are more fuel efficient and low in CO₂ emissions** (see [cepPolicyBrief40/2014](#)) because fuel costs are a significant factor for transport companies.

For the purpose of collecting CO₂-based road-use charges and monitoring CO₂ limits, it is sufficient to register and publish the VECTO data on CO₂ output and the vehicle characteristics that are essential for the actual design of such measures. The planned comprehensive registration obligation and **the proposed publication of the data on vehicle components and “advanced” technologies for reducing fuel consumption** not only go significantly further than that, they also **weaken the competitiveness of the European vehicle manufacturers on markets outside the EU** because manufacturers from third countries who compete outside the EU with EU manufacturers, do not have to - and therefore will not - publish this data if they do not export to the EU. They do not therefore have to show their hand but profit from the transparency in the EU and gain free access to technical details such as air resistance and to technologies for reducing fuel consumption, which are otherwise very costly to obtain.

Against this background, the Commission’s proposal to exclude competition-critical data from publication is essential to safeguard a level international playing field on non-EU markets. **The exceptions to the publication obligations granted to protect fair competition are not sufficient to guarantee EU manufacturers a level playing field**, because they do not cover the sometimes sensitive data on vehicle characteristics, e.g. air resistance, and “advanced” technologies.

The parallel reporting obligations of the Member States and manufacturers as well as the combination of data using the VIN **is a cost-effective way of ensuring** that for every new HDV, in addition to fuel consumption and CO₂ emissions, its country of registration is also identified. This is required in order **that the CO₂ emissions from HDVs can be attributed to the respective country of registration**. This is in turn necessary because EU climate policy regulates transport outside the EU ETS and imposes, for the non-ETS sectors, a mandatory national CO₂ reduction target on every Member State [Effort Sharing Decision (406/2009/EC); proposed Regulation COM(2016) 482, see [cepPolicyBrief 26/2016](#)]. If the reporting obligation only applied to the Member States, those Member States whose VECTO data is only on paper would have to change over to digital transmission which overall would be five times the cost of the parallel reporting obligation [see SWD(2017) 188, p. 31].

Legal Assessment

Legislative Competency

Unproblematic. The EU is empowered to issue environmental measures to protect the climate (Art. 192 TFEU).

Subsidiarity.

Unproblematic. Only uniform EU-wide requirements on the monitoring and registration of CO₂ emissions and HDV fuel consumption will facilitate the comparability of data across the whole internal market.

Conclusion

Incorporating road transport, including **HDVs**, in European emissions trading would render the planned bureaucratic registration obligations superfluous. The Commission’s proposal to establish CO₂ limits prior to passing this Regulation means that regulatory requirements are being put in place based on insufficient data. The VECTO simulation software on its own already brings about sufficient market transparency for purchasers of HDVs, and increases competitive pressure on manufacturers to offer HDVs that are more fuel efficient and low in CO₂ emissions. The publication of extensive data on vehicle components, features and technologies for reducing fuel consumption, weakens the competitiveness of European manufacturers on markets outside the EU. The exceptions to the publication obligation are not sufficient to guarantee EU manufacturers a level playing field. The parallel reporting obligations of Member States and manufacturers is a cost-effective way of ensuring that CO₂ emissions from HDVs can be attributed to the respective country of registration.