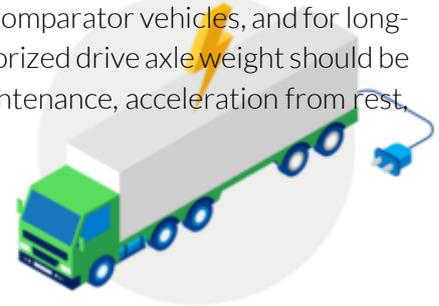


## Six points to make the Weights & Dimensions Directive better incentivize zero emission trucks and buses

April 2023

- ❑ CO2 standards alone are not sufficient to incentivize the adoption of zero emission (ZE) trucks and buses, but ZE vehicles will benefit from toll discounts and weight allowances under the Eurovignette directive and ETS expansion. However, there are additional measures needed to promote the uptake of ZEHDVs, and the proposed revision of the Weights & Dimensions Directive (WDD) provides an opportunity for non-monetary incentives for ZE trucks and buses in Europe. The European Commission should focus on implementing such measures.
- ❑ The European Commission should implement clear cross-border rules for the Weight and Dimension Directive (WDD), expanding its scope and defining the lowest authorized weight limit at border crossings, providing an additional weight allowance for zero-emission heavy-duty vehicles (ZE HDVs) at the national level, and applying to the entire EU.
- ❑ The methodology governing the additional weight allowance should be modified to grant flexibility to new entrants in the selection and assessment of comparator vehicles, and for long-range ZE trucks, a time-limited increase in the maximum authorized drive axle weight should be allowed with safeguards covering tyre configuration and maintenance, acceleration from rest, and timeframe.



### More about the Platform for electromobility

The Platform, a European alliance of over 47 producers, infrastructure managers, operators, transport users, cities and civil society organizations from across industries and transport modes, is very much a coalition of the willing driven by strong member engagement, a really important member pre-requisite. The Platform advocates the acceleration of electrification of all modes of transport, focusing on its numerous benefits, such as emission reduction, efficiency gains, support for technological innovation, jobs and growth through value creation in Europe as well as reducing Europe's energy dependence from fossil fuel imports. The vision of the Platform for electromobility is a sustainable, multimodal transport system in which people and goods are predominantly moved across land in Europe using sustainable electricity. For more information about the platform and its members, please visit:

<https://www.platformelectromobility.eu/>

The Heavy Duty Vehicle (HDV) segment needs to accelerate its decarbonisation. In 2022, battery electric heavy trucks made up only 0.6% of new truck registrations in Europe. Diesel represented 96.6%<sup>1</sup>.

Buses are decarbonising much faster, as new urban bus sales in 2022 saw a higher share of zero emission vehicles – 30%. Diesel buses represented 67.3% of the new sales in Europe<sup>2</sup>.

While the CO<sub>2</sub> standards for trucks and buses are important in setting decarbonization targets for the HDV sector, they will not solve the issue of incentivizing Zero Emission (ZE) trucks and buses.

ZE trucks will be able to benefit from mandatory toll discounts under the Eurovignette directive and the expansion of ETS to road transport. Currently, ZE trucks benefit from a minimum tax on diesel, and a weight allowance of 2 tonnes more than a diesel truck. As zero emission vehicles weigh more than diesel-powered vehicles due e.g. to the battery weight, the additional weight allowance is a must-have measure for decarbonizing the HDV segment.

Even though the additional weight allowance of 2 tonnes is a good starting point, there are additional measures that can help the uptake of ZEHDVs, which has so far been limited. **The proposed revision of the Weights & Dimensions Directive (WDD) provides an excellent opportunity for non-monetary incentives for zero emission trucks and buses in Europe.** The European Commission should focus on the following measures:

- 1) Implement clear cross-border rules
- 2) Modify the methodology governing the additional weight allowance
- 3) For long-range ZE trucks, permit one further tonne, linked to range, to a max of 3t
- 4)
- 5) Allow ZEHDVs a time-limited increase in the maximum authorised drive axle **weight**
- 6) European Modular System (EMS) should be zero-emission by 2028
- 7) Set explicit time limits for WDD transposition and type-approval

#### **1) Implement clear cross-border rules**

As it stands now, the WDD enables the additional weight allowance only at border crossings of 13 EU Member States as the weight allowance only applies at borders of countries that have the lowest authorised vehicle weight. Furthermore, it does not provide an incentive for ZE HDV activities at the national level.

The current WDD has led to disputes between Member States on the allowed weight of HDVs on border crossings. In order to avoid any new disputes and remove the existing ones, the EC should develop rules that apply to the entire EU and not to selected border crossings.

The Benelux countries have done exactly that in 2022<sup>3</sup>. Although Benelux countries have different authorised weight allowances, when freight vehicles cross borders, the lowest weight limit in both countries is applicable. And for zero-emission vehicles, the additional weight allowance is automatically added.

Therefore, the European Commission should expand the scope of the WDD and clearly define that:

- a. The lowest authorised weight limit at border crossings is equal to the lowest authorised weight limit between two adjoining Member States;

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<sup>1</sup> <https://www.acea.auto/fuel-cv/fuel-types-of-new-trucks-electric-0-6-diesel-96-6-market-share-full-year-2022/>

<sup>2</sup> <https://www.acea.auto/fuel-cv/fuel-types-of-new-buses-electric-12-7-diesel-67-3-market-share-full-year-2022/>

<sup>3</sup> [https://www.benelux.int/files/8216/5158/8224/Bulletin\\_2022-1\\_FR.pdf](https://www.benelux.int/files/8216/5158/8224/Bulletin_2022-1_FR.pdf)

- b. That the additional weight allowance for ZE HDVs is automatically added to the lower authorised weight limit;
- c. The additional weight allowance applies also for national transport.

### 2) Modify the methodology governing the additional weight allowance

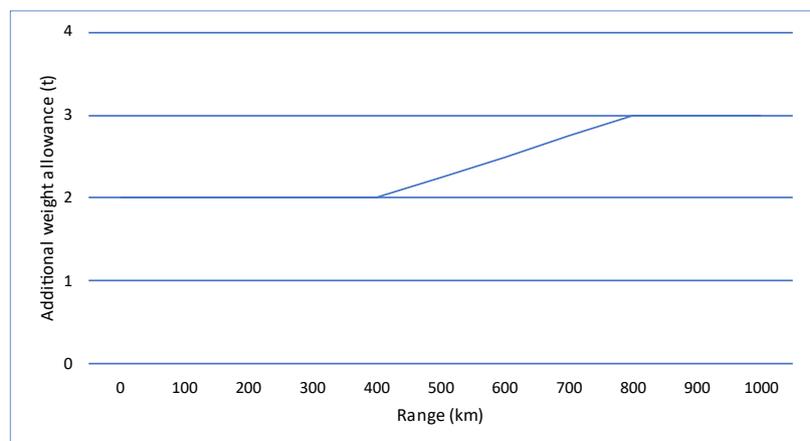
In practice, the current system requires the vehicle-maker to present a diesel comparator, with up to 2 additional tonnes then allowed above the weight of the comparator vehicle.

This system causes issues for new ZE vehicle-makers, which by definition, don't have comparator vehicles to reference.

The WDD revision should grant some flexibility to new entrants by saying that the relevant authorities must have due regard to the position of new entrants in the selection and assessment of comparator vehicles.

### 3) For long-range ZE trucks, permit one further tonne, linked to range, to a max of 3t

Up to ranges of approximately 400km, the additional 2t already granted is sufficient. Beyond this range, however, the allowance should be increased according to greater range provided. We suggest 2.5kg per km of ZE certified range above 400km to a maximum of 3t (i.e. the maximum is reached at 800km).



### 4) Allow ZEHDVs a time-limited increase in the maximum authorised drive axle weight

The change most sought by truck and bus-makers is an increase in the maximum authorised axle weight placed on the axle connected to the zero emission powertrain, more commonly known as the drive axle. Today the weight limit applied to the drive axle is 11.5t, and due to the higher weight of ZE powertrains (e.g. batteries), truck and bus-makers ask that this limit be raised to 12t. This ask concerns two-axle tractor units and buses in the EU, which are the most-sold configurations.

On the one hand, such a change would boost the pace and scale at which zero-emission trucks and buses are deployed. On the other hand, without safeguards and phase-down dates, it could increase road wear.

Therefore, we advocate considering this change on the basis of a number of safeguards covering:

- a. tyre configuration and maintenance;
- b. the speed at which such vehicles can take off from a stopped position (“acceleration from rest”); and
- c. timeframe, namely that ZE truck & bus-makers can deploy 12t drive axles - under certain conditions - until a certain year (2029 for trucks).

Taking each of these in turn, for a qualifying vehicle, it would be necessary to deploy:

Tyres

- On the steer (front) axle, wide base high-efficiency tyres

- On the drive (rear) axle, dual tyre configuration (assembly) using high-efficiency tyres
- A Tyre Pressure Monitoring system that alerts the driver to a loss of pressure any greater than 0.5 bar, and with a duty to restore pressure to recommended levels at the nearest available facility having regard to the direction of travel

Acceleration limiter

- Ensuring take-off-from-rest is between 1 and 1.2m/s<sup>2</sup>

Timeframe

- 4x2 ZE trucks registered from entry into force [in ~2026] to 1.1.2029 can carry 12t on the drive axle - once the above conditions are met
- More flexibility on the end date could be considered for buses (and coaches) given their smaller sales numbers.

### **5) European Modular System (EMS) should be zero-emission by 2028**

There are calls across the trucking sector for more opportunities to use EMS. However, it can only be guaranteed that EMS will reduce emissions if the trucks are ZE. Therefore if proposals are made to permit cross border EMS, it can only be by ZE trucks, and where each route is checked and approved by the relevant authorities for road safety (i.e. that approach roads used to access the highway are suitable for EMS movement) and freight modality (coherence with overall freight policy goals).

### **6) Set explicit time limits for WDD transposition and type-approval**

The WDD does not have a formal time limit for transposing the existing 2 tonnes weight allowance into national law. This needs to be done as soon as possible as the business case for long-range zero emission HDVs depends on clear rules across Member States.

As the previous transposition of weights and dimensions rules to type approval law took [four years](#), it is important to set a stricter deadline. This will enable manufacturers to achieve the recently proposed HDV CO<sub>2</sub> reduction targets.