Amendment proposal for improving the CO_2 benefits of the super credits scheme.

The amendments below are suggestions to improve the super-credit system of the HDV CO_2 standard. The amendments would allow the following:

- Removing buses from the regulatory incentives

- The super credits, with a factor of 2 for ZEVs, would be subject to the mileage and payload weightings (MPW values) for all vehicle subgroups (4-UD, 4-RD, 4-LH, 5-RD, 5-LH, 9-RD, 9-LH, 10-RD, 10-LH), with the exception of vocational vehicles.

- Other zero emission trucks in unregulated groups and vocational vehicles in regulated groups may count as well for the ZE credits with a reduced multiplier of 0.25.

Article 2 – paragraph 1 – subparagraph 2

Text proposed by the Commission	*Amendment*
*It shall also apply, for the purposes of Article 5 and point 2.3 of Annex I, **to vehicles of the categories M2 and M3, and** to vehicles of the category N that do not fall within the scope of Regulation (EU) No 510/2011 and do not meet the characteristics set out in points (a) to (d).*	*It shall also apply, for the purposes of Article 5 and point 2.3 of Annex I to vehicles of the category N **with a technically permissible maximum laden mass above 7.5 tonnes** that do not fall within the scope of Regulation (EU) No 510/2011 and do not meet the characteristics set out in points (a) to (d).*

Justification

Buses are not subject to mandatory CO2 reductions and therefore have no associated compliance cost. They should not be part of the ZLEV incentive. Unregulated trucks above 7.5 tonnes, which are captured by VECTO, can participate in the incentive.

Article 5

Article 5

Zero- and low-emission heavy-duty vehicles

1.

Starting from 2020 and for each subsequent calendar year, the Commission shall, by means of implementing acts referred to in Article 10(1), determine for each manufacturer the zero- and low-emission *factor* referred to in Article 4(b) for the preceding calendar year.

The zero- and low-emission *factor* shall take into account the number and the CO_2 emissions of zero- and low-emission heavy-duty vehicles in the manufacturer's fleet in a calendar year*, including* zero-emission vehicles of the categories referred to in the second sub-paragraph of Article 2(1), as well as zero- and low-emission vocational vehicles.

The zero- and low-emission *factor* shall be calculated in accordance with point 2.3 of Annex I.

2. For the purpose of paragraph 1, the zero- and low-emission heavy-duty vehicles shall be counted as follows:

(a) a zero-emission heavy-duty vehicle shall be counted as 2 vehicles;

(b) a low-emission heavy-duty vehicle shall be counted as up to 2 vehicles according to a function of its specific CO_2 emissions and the threshold emission level of 350 g CO_2/km.

3. The zero- and low-emission factor shall reduce the average specific emissions of a manufacturer by a maximum of 3% . The *contribution of* zero-emission heavy-duty

Article 5

Zero- and low-emission heavy-duty vehicles

1.

Starting from 2020 and for each subsequent calendar year, the Commission shall, by means of implementing acts referred to in Article 10(1), determine for each manufacturer the zero- and low-emission *factors* referred to in Article 4(b) for the preceding calendar year.

The zero- and low-emission *factors* shall take into account the number and the CO_2 emissions of zero- and low-emission heavy-duty vehicles in the manufacturer's fleet in a calendar year *for each sub-group*. Zero- emission vehicles of the categories referred to in the second sub-paragraph of Article 2(1), as well as zero-emission vocational vehicles, *shall also be taken into account with a separate zero-emission factor.*

The zero- and low-emission *factors* shall be calculated in accordance with point 2.3 of Annex I.

2. For the purpose of paragraph 1, the zero- and low-emission heavy-duty vehicles shall be counted as follows:

(a) a zero-emission heavy-duty vehicle shall be counted as 2 vehicles;

(b) a zero-emission heavy-duty vehicle referred to in the second sub-paragraph of Article 2(1), as well as zero-emission vocational vehicles, shall be counted as 1 vehicles;

(c) a low-emission heavy-duty vehicle shall be counted as up to 2 vehicles according to a function of its specific CO_2 emissions and the threshold emission level of 350 g CO_2/km.

3. The zero- and low-emission *factors for each sub-group are not capped a priori. Yet, the combined application of the* zero- and low-emission *factors* of each sub-

vehicles of the categories referred to in the second sub-paragraph of Article 2(1) *to that factor* shall reduce the average specific emissions of a manufacturer by a maximum of 1.5%.

group shall reduce the average specific emissions of a manufacturer by a maximum of 3% . The zero-emission *factor for* heavy-duty vehicles of the categories referred to in the second sub-paragraph of Article 2(1), *as well as zero-emission vocational vehicles,* shall reduce the average specific emissions of a manufacturer by a maximum of 1.5%.

Justification

Buses are not subject to mandatory CO2 reductions, therefore, have no associated compliance cost should not be part of the ZLEV incentive.

Apply the ZLEV super-credit correction to the average CO2 emissions of the individual subgroups in order to take into account the differences in payload and mileage of the different vehicle subgroups and make the ZLEV incentive to be proportional to lifetime CO2 savings of ZLEVs. This results in one ZLEV factor for each subgroup.

A separate ZEV factor, without super credits, is introduced.

Annex I – point 2 – point 2.3

Text proposed by the Commission

For each manufacturer and calendar year, the zero- and low-emission factor (**ZLEV**) referred to in Article 5 shall be calculated as follows:

ZLEV = V / (Vconv + Vzlev)   **with a minimum of 0,97**

Where,

V   is the number of new heavy-duty vehicles of the manufacturer excluding all vocational vehicles in accordance with Article 4(a).

Vconv is the number of new heavy-duty vehicles of the manufacturer excluding all vocational vehicles in accordance with Article 4(a) and excluding zero- and low-emission heavy-duty vehicles;

Vzlev **is the sum of Vin and Vout**,

Where,

$$V_{in} = \sum_v 1 + (1 - CO2_v/350)$$

with $\sum_v$ being the sum over all new zero- and low-emission heavy-duty vehicles with the characteristics set out in Article 2(1)(a) to (d);

$CO2_v$ is the specific CO_2 emissions in g/km of a zero- and low- emission heavy-duty vehicle v determined in accordance with point 2.1.

Vout   is the total number of zero-emission heavy-duty vehicles of the categories referred to in in the second sub-paragraph of Article 2(1*), multiplied by 2, and with a maximum of 1,5% of Vconv.*

<div align="center">***Amendment***</div>

For each manufacturer**, *sub-group,*** and calendar year, the zero- and low-emission factor (***ZLEV*$_{sg}$**) referred to in Article 5 shall be calculated as follows:

***ZLEV*$_{sg}$ = *V*$_{sg}$ / (*Vconv,sg* + *Vzlev,sg*)**

Where,

***V*$_{sg}$**   **is the number of new heavy-duty vehicles of the manufacturer in a subgroup sg excluding all vocational vehicles in accordance with Article 4(a).**

Vconv,sg   is the number of new heavy-duty vehicles of the manufacturer **in a subgroup** excluding all vocational vehicles in accordance with Article 4(a) and excluding zero- and low-emission heavy-duty vehicles;

Vzlev,sg   is ***Vin,sg***

> Where,
>
> $$V_{in,sg} = \sum\nolimits_{v,sg} 1 + 1 - CO2_v/(0.4 * rCO2_{sg})$$
>
> with $\sum_{v,sg}$ being the sum over all new zero- and low-emission heavy-duty vehicles **in the sub-group sg** with the characteristics set out in Article 2(1)(a) to (d)**, excluding all vocational vehicles in accordance with Article 4(a);**
>
> $CO2_v$ is the specific CO_2 emissions in g/km of a zero- and low- emission heavy-duty vehicle v determined in accordance with point 2.1.
>
> ***rCO2*$_{sg}$ (g/tkm) is the reference CO2 emissions of the sub-group sg calculated on the basis of all new heavy-duty vehicles of all manufacturers of the year 2019**

For each manufacturer and calendar year, the zero-emission factor for heavy-duty vehicles of the categories referred to in the second sub-paragraph of Article 2(1), as well as for zero-emission vocational vehicles, (*ZEV*$_{out}$) referred to in Article 5 shall be calculated as follows:

ZEV$_{out}$ = V / (V + 0.25*Vvoc + 0.25*Vout)   **with a minimum of 0,985**

Where,

V   **is the number of new heavy-duty vehicles of the manufacturer excluding all vocational vehicles in accordance with Article 4(a).**

Vvoc   **is the total number of zero-emission heavy-duty vocational vehicles with the characteristics set out in Article 2(1)(a) to (d);**

Vout   **is the total number of zero-emission heavy-duty vehicles of the categories referred to in the second sub-paragraph of Article 2(1).**

Justification

Apply the ZLEV super-credit correction to the average CO2 emissions of the individual subgroups in order to take into account the differences in payload and mileage of the different vehicle subgroups and make the ZLEV incentive to be proportional to lifetime CO2 savings of ZLEVs.

Vehicle groups of category N over 7.5 tonnes not subject to mandatory CO2 reductions (e.g., vocational trucks and soon to be regulated trucks) that therefore have no associated compliance cost can reduce the average CO2 emissions of a manufacturer, as in the original proposal, but with a reduced multiplier.

Annex I – point 2 – point 2.7

For each manufacturer and each calendar year, the average specific CO_2 emissions in g/tkm (CO2) shall be calculated as follows:

$$CO2 = \textbf{\textit{ZLEV}} \times \sum\nolimits_{sg} share_{,sg} \times MPW_{sg} \times avgCO2_{sg}$$

Where,

$\sum sg$ is the sum is over all sub-groups;

ZLEV is as determined in point 2.3

share$_{,sg}$ is as determined in point 2.4

MPW$_{sg}$ is as determined in point 2.6

avgCO2$_{sg}$ is as determined in point 2.2

Amendment

For each manufacturer and each calendar year, the average specific CO_2 emissions in g/tkm (CO2) shall be calculated as follows:

$$CO2 = \textbf{\textit{ZEV}}_{\textbf{\textit{out}}} \times \sum\nolimits_{sg} \textbf{\textit{ZLEV}}_{\textbf{\textit{sg}}} \times share_{,sg} \times MPW_{sg} \times avgCO2_{sg}$$

Where,

$\sum sg$ is the sum is over all sub-groups;

$ZLEV_{sg}$ is as determined in point 2.3

ZEV_{out} is as determined in point 2.3

share$_{,sg}$ is as determined in point 2.4

MPW$_{sg}$ is as determined in point 2.6

avgCO2$_{sg}$ is as determined in point 2.2

The combined application of the factors $ZLEV_{sg}$ and of the factor ZEV_{out} can reduce the average specific CO_2 emissions of a manufacturer by a maximum of 3%

Justification

Apply the ZLEV super-credit correction to the average CO2 emissions of the individual subgroups in order to take into account the differences in payload and mileage of the different vehicle subgroups and make the ZLEV incentive to be proportional to lifetime CO2 savings of ZLEVs. A separate ZEV factor for non-regulated trucks is included.