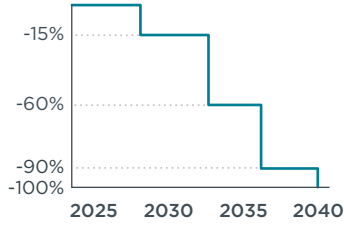









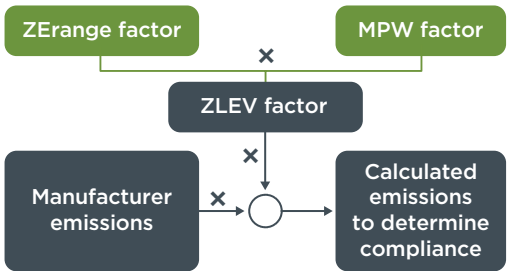


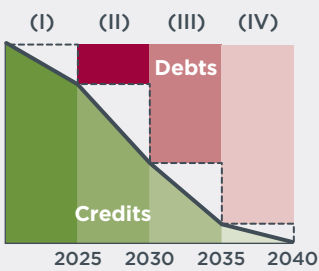
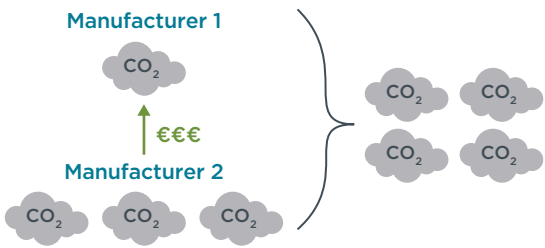


The seven amendments needed to align Europe's heavy-duty vehicle CO₂ standards with the European Climate Law

Europe's heavy-duty vehicle CO₂ standards will achieve little climate benefit in their current form. Most trucks are required to reduce their emissions by 15% by 2025 and 30% by 2030, relative to 2019. Freight activity is projected to rise by 44% by 2050, greatly diminishing the total CO₂ reductions from the sector. With trucks and buses accounting for a quarter of Europe's CO₂ emissions from road transport, complying with climate neutrality will not be possible in the absence of stricter standards.

The European Commission will review the CO₂ standards by the end of 2022 and will propose amendments which are intended to align the truck and bus sector with Europe's long-term climate commitments. This fact sheet outlines recommendations for the most significant elements of the standards to achieve the decarbonization required in the European Climate Law.

Recommendation	Explanation																
<p>Increase the 2030 target to 60%, introduce targets of 90% for 2035 and 100% for 2040</p> 	<p>Most European truck and bus manufacturers have pledged to significantly increase their market share of zero-emission vehicles by 2040. If achieved, and supplemented with energy efficiency improvements, this would equate to reduction targets of 60% in 2030, 90% in 2035, and 100% in 2040. Most importantly, this would deliver a 96% reduction in annual HDV CO₂ emissions by 2050.</p>																
<p>Regulate all certified vehicles</p> <table><tr><th>Reduction targets relative to baseline</th><th>2030</th><th>2035</th><th>2040</th></tr><tr><td></td><td>60%</td><td>90%</td><td>100%</td></tr><tr><td></td><td>90%</td><td>100%</td><td></td></tr><tr><td></td><td>7-10%</td><td></td><td></td></tr></table>	Reduction targets relative to baseline	2030	2035	2040		60%	90%	100%		90%	100%			7-10%			<p>Currently, only 63% of European truck and bus sales are covered by the CO₂ standards. Extending the scope of the regulation to all HDVs covered by the certification regulation would cover 85% of annual sales, and 95% of annual truck and bus CO₂ emissions. Separate CO₂ standards should be created for trailers, as well as for buses and coaches.</p>
Reduction targets relative to baseline	2030	2035	2040														
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Recommendation	Explanation
<p>Differentiate the ZLEV factor based on a vehicle's MPW and zero-emission range</p>  <pre> graph TD ZErangle[ZErangle factor] -- x --> ZLEV[ZLEV factor] MPW[MPW factor] -- x --> ZLEV Manufacturer[Manufacturer emissions] -- x --> Calculated[Calculated emissions to determine compliance] ZLEV -- x --> Calculated </pre>	<p>Manufacturers can reduce their compliance target by producing zero- and low-emission vehicles (ZLEVs) through a mechanism known as a ZLEV factor. By 2030, manufacturers with a share of ZLEVs between 2% and 5% can reduce their target by a maximum of 3%. Most manufacturers already plan to sell 50%-70% zero emission vehicle by 2030, meaning the ZLEV factor provides little incentive for manufacturers to invest in zero-emission technology.</p> <p>The ZLEV factor should be phased out after 2030. In the meantime, the mechanism can be improved by weighting the incentives based on the vehicle's zero-emission range and mileage and payload weighting factor.</p>
<p>Do not introduce a fuels crediting system</p> 	<p>Fuels crediting, whereby a manufacturer could reduce their CO₂ target by paying a fuels supplier to produce more renewable fuels, should not be allowed in the CO₂ standards. Sustainable e-fuels are prohibitively expensive, and biofuels are linked to issues of sustainability and availability. Fuel credits are also at risk of being double counted due to fuel suppliers' pre-existing obligations under the Renewable Energy Directive.</p>
<p>Introduce engine standards for vocational vehicles</p> 	<p>The scope of the CO₂ standards should be extended to vocational vehicles through the implementation of engine standards requiring an emissions reduction through engine specific technologies. There would be little administrative burden, and the benefits may trickle across to other truck and bus segments which use the same engine model.</p>
<p>Extend the banking and borrowing system past 2030, but only if the stringency of the standards is increased</p> 	<p>The CO₂ standards include flexibilities for manufacturers to comply with their CO₂ emission targets through a credit and debt system, allowing them to accrue credits by over complying with their target early, and using these credit to offset any future debts. The credit and debt mechanism should only be extended past 2030 if the stringency of the 2030 target is significantly increased. Otherwise, a surplus of credits risks distorting the market.</p>
<p>Allow for manufacturers to trade their credits</p> 	<p>Manufacturers should be allowed to trade their credits to other manufacturers if the stringency of the targets are increased. Doing so would open a source of revenue for smaller manufacturers who focus solely on zero-emission deployment, increasing competitiveness in the market.</p>

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