

CO2 Standards for Cars and Vans

Final compromise text

18 January 2019

On 18 December 2018 the Commission, the Parliament and the Council reached an agreement on the CO2 standards for cars and vans (see consolidated text [here](#)). Endorsement in COREPER has taken place on 16 January and a vote endorsing this file in the ENVI Committee meeting will occur on 22 January.

Targets and mass parameters

- The Regulation sets out separate emission reductions for newly registered cars and vans based on a 2025 sub-targets and 2030 target. These emissions will be measured at tailpipes of these vehicles, and the reductions will be based on a 2021 baseline
- **2025 targets are 15% for both cars and vans.** 2030 targets for cars and vans differ significantly. **For passenger cars, the car manufacturers (OEMs) will have to reduce emissions by 37.5% by 2030. For vans, the OEMs will have to decrease emissions by 31% .**
- Vehicles mass is kept as a utility parameter. This means that heavier cars will have a higher specific emissions target.

Benchmarks and incentives for zero-and-low emission vehicles (ZLEVs)

- The Regulation has a strong mechanisms to increase the uptake of zero-and-low emission vehicle (ZLEV). This is done through a benchmark mechanism, setting OEM ZLEV sales target for **cars at 15% by 2025 and 35% by 2030**, whereas **vans would be subject to 15% benchmark by 2025 and 30% by 2030.**
- There is **no malus mechanism for not meeting the ZLEV sales benchmarks.** OEMs that outperform the benchmark will be rewarded in average specific emissions calculations with a so-called **ZLEV factor**.
- ZLEVs are counted proportionally to their emission reductions potential and thus give OEMs flexibility in fulfilling the target. This **means manufacturers could also meet the 2025 car benchmark by using a fleet of plug-in hybrids cars.** However, we understand that **more battery electric vehicles (EVs) would be necessary to meet the 2030 benchmark**, unless the regulation's review introduces a life-cycle analysis.
- **Low-ZLEV Member State Incentive:** Member States with low ZLEV car uptake would benefit from an extra incentive mechanism for OEMs to introduce new ZLEV cars into their markets. This is limited until 2030 or until the first year when the ZLEV share in a respective Member State reaches 5%.

Switching from NEDC to WLTP, Real-World Emissions and Excess Premiums

- The EU has begun transitioning from the NEDC system to the Worldwide Harmonised Light Vehicles Test Procedure (WLTP). The Regulation will also monitor real-world emissions by requiring OEMs to fit cars with **on-board fuel-consumption monitoring devices from 2020 for cars and 2021 for vans.**
- The EU will monitor data from these devices from 2021 to 2026, **and the Commission will monitor how a gap between the WLTP levels and real-world emissions of CO2 emissions is developing** and by July 2023 it will have to report on this. By 2027 the Commission will have report on the *“feasibility of a mechanism to adjust the manufacturer's average specific CO2 emissions as of 2030”* .

Review: low-carbon fuels and Life-Cycle assessment

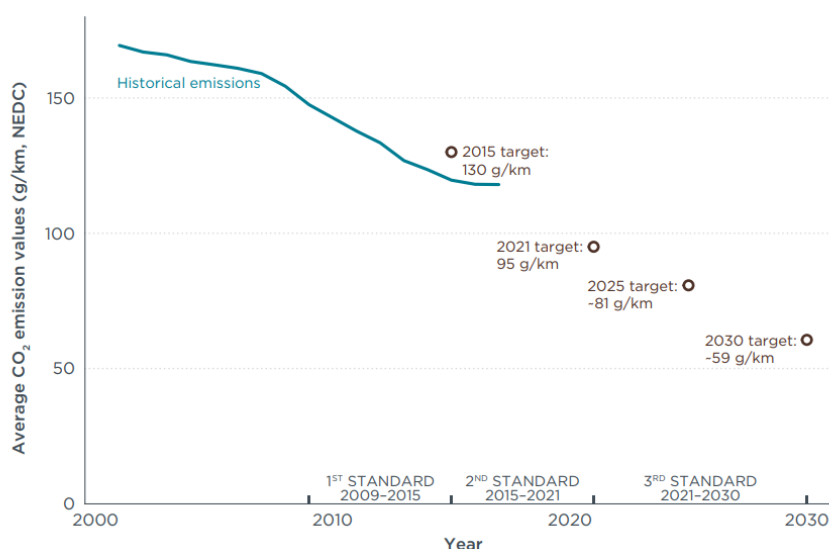
- In 2023 the Commission will have to review the Regulation. This review would also assess the *“potential contribution of the use of synthetic and advanced alternative fuels” to cutting emissions*”. This formulation **opens the door consider the role of liquid low carbon fuels of synthetic origin.**
- In the same year the Commission will also evaluate **feasibility of switching to life-cycle assessment.**

Please see below for a summary of relevant provisions.

Targets and mass parameters

Targets (Article 1)

- The regulation sets out separate emission reductions for newly registered cars and vans based on 2025 and 2030 targets. **These emissions will be measured at tailpipes of these vehicles.**
- These targets are based on a 2021 baseline. Expressed in NEDC terms, using the current 2021 CO₂ target of 95 g/km as the baseline, these reductions are translate into a target value of 81 g/km by 2025 and 59 g/km by 2030.
- The **2025 targets for cars and vans are identical**, with an EU fleet-wide target of **15% reductions of the average specific emissions**. This sub-target is the same as the
- The **2030 targets for cars and vans differ significantly**:
 - **For passenger cars**, the car manufacturers (OEMs) will have to reduce emissions **by 37.5% by 2030**. This is a significant increase compared to the Commission’s proposal of 30% by 2030 and a compromise position between the Parliament’s 40% target and the Council’s 35% target.
 - **For vans**, the OEMs will have to decrease emissions **by 31%** . This is a minor increase compared to the Commission’s original proposal of 30%



Source: ICCT report, footnote 1

Mass Parameters (Annex I and Article 1-3)

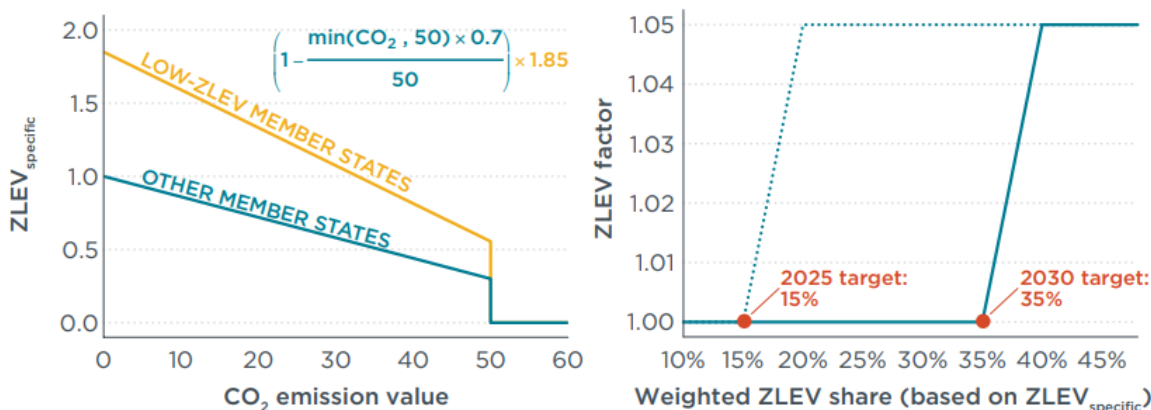
- As with previous regulations, vehicles mass is kept as a utility parameter. This means that heavier cars will have a higher specific emissions target.
- The regulation would use a factor of 0.0333 until 2024, hence for every 100 kg by which a vehicle exceeds OEM’s average emissions would translate into 3.33g/km higher CO₂ emissions.¹
- For calculations from 2025 onwards, the Commission will adjust the CO₂/mass data based on cars registered in 2021.

Benchmarks and Incentives for zero-and-low emission vehicles (ZLEVs) – Annex I (Part 1 and 2)

- The regulation has a strong mechanisms to increase the uptake of zero- and-low emission vehicle (ZLEV). This is done through a benchmark mechanism, setting OEMs ZLEV sales target for **cars at 15% by 2025 and 35% by 2030**, whereas vans would be subject to 15% benchmark by 2025 and 30% by 2030.
- There is **no malus mechanism for not meeting the ZLEV sales benchmarks**.

¹ ICCT, CO₂ emission standards for passenger cars and light-commercial vehicles in the European Union, <https://www.theicct.org/publications/ldv-co2-stds-eu-2030-update-jan2019>.

- **Zero- and low emission vehicle (ZLEV)** refers to a car or vans with **tailpipe emissions from zero up to 50 g CO₂/km**.
- **Vehicles are counted proportionally to their emission reductions potential and thus give OEMs flexibility in fulfilling the target.** For instance, zero emission vehicles are calculated as 1, vehicles which are 51 g CO₂/km or above are calculated as zero, whereas ZLEVs range 0.3 and 1 depending on their respective emissions.
- **Manufacturers could also meet the 2025 car benchmark by using a fleet of plug-in hybrids cars.** However, we understand that **battery electric vehicles (EVs) would be necessary to meet the 2030 benchmark**, unless the Regulation's review introduces a life-cycle analysis (see below).
- OEMs that outperform the benchmark will be rewarded in average specific emissions calculations with a so-called **ZLEV factor**. A higher ZLEV factor increases the average specific emissions target by up to 5%, giving manufacturers breathing space with their fleet emissions. See full calculation
- **Low-ZLEV Member State Incentive:** As first proposed in the Council's General Approach, Member States with low ZLEV car uptake would benefit from an extra incentive mechanism for OEMs to introduce new ZLEV cars into their markets:
 - This would apply for **countries that have a share of ZLEV cars in their national fleet below 60% of the EU average and fewer than 1000 new ZLEV registrations in 2017**. This formulation reduces the number of Member States that can fully benefit from this incentive, as Transport & Environment had argued in November that the Council's proposed incentive would have allowed up to 15 countries to benefit.²
 - OEMs introducing their ZLEVs in countries benefiting from this incentive could by using a 1.85 multiplier against their ZLEV target until 2030 or until the first year when the ZLEV share in a respective Member State reaches 5%.



Source: ICCT report, footnote 1

Switch from NEDC to WLTP, Real-World emissions and excess premiums, and niche derogations

Switch from NEDC to WLTP

- The EU has begun transitioning from the NEDC system to the Worldwide Harmonised Light Vehicles Test Procedure (WLTP).
- OEMs will be prevented from cheating in the switch between the two systems, as the 2021 baseline would not rely on declared emissions by the manufacturers but instead on values directly measured.

Real-World Emissions and Excess Premiums (Article 8 and Article 12)

- The Regulation will require OEMs to fit cars with **on-board fuel-consumption monitoring devices from 2020 for cars and 2021 for vans**.

² Transport and Environment, https://www.transportenvironment.org/sites/te/files/publications/2018_11_ZLEV_paper_final.pdf

- The EU will monitor data from these devices from 2021 to 2026, **and the Commission will monitor how a gap between the WLTP levels and real-world emissions of CO2 emissions is developing** and by July 2023 it will have to report on this.
- By 2027 the Commission will have report on the *“feasibility of a mechanism to adjust the manufacturer’s average specific CO2 emissions as of 2030”* and prepare a legislative proposal for this mechanism if need be.
- **Excess emissions premium** is set out against manufacturers not meeting the targets. The formula is set out as follows:“(Excess emissions × EUR 95) × number of newly registered vehicles.”
- OEMs can reduce these premiums if they help support a just transition to low emission vehicles, i.e retraining their workers.

Review: recognition of low-carbon fuels and Life-Cycle assessment (Articles 7 and 14)

Review

- The Commission will have to review the effectiveness of the regulation in 2023 (no later than July, see real-world emissions section above). This report will have to be very substantive and cover reports from other pieces of legislation, including Alternative Fuels Directive (DAFI)
- The report would include how the gap between real-world emissions and WLTP, energy consumption levels, deployment of ZLEVs (especially cars), roll-out of charging/refuelling infrastructure as per DAFI.
- Crucially, the report would also analyse *“the potential contribution of the use of synthetic and advanced alternative fuels produced with renewable energy to emission reduction”*. This formulation opens the door to consideration of the role of liquid low carbon fuels of synthetic origin.

Life-Cycle emissions

- While not directly linked to the review report discussed above, the Commission will also be required to **evaluate the potential for the use of life-cycle cycle assessment by 2023**.
- Specifically, the Commission will have *“evaluate the possibility of developing a common Union methodology for the assessment and the consistent data reporting of the full life-cycle CO2 emissions of light duty vehicles that are placed on the Union market.”*
- This evaluation has to be provided to the Parliament and the Council, including any follow-up proposals if the evaluation deems it them to be appropriate.

Next steps

- **22 January 2019:** Endorsement by ENVI Committee.
- **25-28 March/3-4 April 2019:** Adoption by Plenary.
- **Q2 2019:** Adoption by the Council.