

CO2 emission performance standards for new passenger cars and light commercial vehicles

Consultation response

July 2020

Summary

This paper responds to the Department for Transport (DfT) consultation on future car and van CO2 standards.

The proposed approach reasonably translates the current EU regulation into a form of UK law but in doing so relaxes the 2021 target from 95gCO₂/km for cars to over 100gCO₂/km. This should be changed to ensure the weighted average of UK company targets match the EU targets. As currently drafted, the government claim that the regulation is at least as stringent as EU rules is incorrect.

The government should also be aware the proposals are totally inadequate to achieve the goal to phase out sales of new cars with engines by 2035 at the latest. The regulation will therefore need to be supplemented by a more ambitious zero emissions vehicles sales target requiring a quarter of new cars and vans sold to be zero emissions by 2025 and at least two-thirds zero emissions by 2030 in order to achieve a 2035 phase out.

The proposed Statutory Instrument should be an effective sticking plaster to ensure there is some regulation of car and van CO₂ emissions at the start of 2021 and ensure that supply of electric vehicles to the UK continues. In its absence supply of battery electric cars will almost certainly dry-up as carmakers will have no regulatory incentive to sell BEVs in the UK. It is therefore essential the regulation is implemented by the start of 2021.

1. Background

This paper has been prepared by Transport and Environment (T&E) UK in response to the consultation from the Department for Transport (DfT) [CO2 emission performance standards for new passenger cars and light commercial vehicles](#).

[T&E](#) is Europe's foremost sustainable transport NGO, a federation of almost 60 national organisations campaigning for greener transport. T&E has been closely involved in developing the EU car and van CO2 regulation; and defining the WLTP test and has a detailed understanding of the EU regulation. It now has UK based staff that are responsible for the preparation of this response.

In responding to the consultation T&E recognises the purpose of the regulation is only to translate the existing EU rules into UK law and not to reform the legislation to meet wider policy needs. In our response we have however highlighted where the proposals are at odds with wider government climate policy.

2. Targets and CO2 emission formula

The proposed approach is significantly weaker than the equivalent EU regulation and is estimated to approximate to a fleet average target of just over 100 gCO₂/km for cars in 2021. The 5 g/km discrepancy with the EU target arises from the DfT choosing not to adjust for the heavier mass of cars and vans sold in the UK compared to the EU average. In [2018](#), the average mass of cars sold in the UK was 1434kg compared to 1391kg for the EU average and 1378kg for the Mo value defined in the formula to calculate manufacturer targets. Ministerial statements that as a result of leaving the EU that regulation will not be weakened is therefore incorrect.

The effect of using the EU average mass rather than the UK mass weakens the stringency of the regulation not only in 2021 but potentially also in 2025 and 2030 since targets in these years are based upon emissions reductions from the 2021 emissions. The weighted (by sales) fleet average emissions of the targets for UK manufacturers should at least match those of the EU in 2021 for cars. Ideally the UK regulation should be more ambitious reflecting the intention to phase out sales of cars with engines by 2035 at the latest.

The UK should adjust company targets to reflect the heavier average mass of cars and vans sold in the UK in line with the requirements of the EU regulation. This will ensure the overall 95gCO₂/km target for cars and 147gCO₂/km target for vans are met. DfT should modify the statutory instrument (SI) so this applies for 2021 and if not at the first subsequent available opportunity to apply the weight

correction. The adjustment should also apply to the 2025 and 2030 targets to ensure the UK ambition at least matches those of the EU.

Whilst the SI will continue the slow shift to electric vehicles underway in the UK, it is entirely incompatible with the goal to phase out sales of new cars with engines by 2035 at the latest. The EU regulation has a goal to reduce CO2 emissions by 15% for cars and vans by 2025 and 37.5% and 31% for cars and vans respectively in 2030, compared to 2021 values. But these CO2 targets can be met in a variety of ways including selling fewer high emitting vehicles; selling more mild hybrid, hybrid and plug-in hybrid models; or selling more battery electric (zero emission) models. Matching the EU regulation will not achieve a phase out of cars with engines even by 2040. This is illustrated in the table below that estimates the share of ZEVs likely to be needed to achieve EU car targets for 2025 and 2030 and those necessary to achieve a phase out by different end dates. Details of the calculation are provided in the annex to this paper.

Cars	Sales of ZEVs required to achieve target				
	EU regulation	Proposed UK regulation	2032 phase out	2035 phase out	2040 phase out
2025	c15%	c13%	38%	24%	18%
2030	c29%	c27%	88%	69%	50%

It is difficult to make similar assessments for vans as EU regulations are much less ambitious and there is more scope to reduce van emissions using conventional technology to reduce emissions from ICEs. However, overall the sales of battery electric vans as a result of EU (or proposed UK) CO2 regulations will be much less than for cars and the regulation even less appropriate to achieve a phase out of vans. T&E estimate around 10% battery electric vans will be sold to meet the EU 2025 target and 20% the 2030 target. The calculation is detailed in the annex.

3. Other questions

3.1 Derogations

The approach proposed for derogations to the regulation are balanced and reasonable.

3.2 Eco innovations

The proposed approach for eco innovations are reasonable. However, there is no mention in the proposal about the desirability of alignment between the level of credit awarded to an eco-innovation issued through the EU and UK approvals systems. The assessment procedure inevitably contains an

element of expert judgement and two entirely parallel processes could award different credits for the same technology fitted to the same vehicle but approved in different jurisdictions. Such an outcome would undermine confidence in the assessment and ultimately regulation. The UK should seek to ensure that in undertaking its own assessments account is taken of the approach and outcome of EU assessment processes and the results of UK assessments shared with the relevant EU approval authority.

3.3 Super credits

The proposed mechanism for super credits is reasonable. The proposal allows 3.75g/km of super credits to apply in the UK regulation for 2 years rather than 7.5g/km for 3 years in the EU scheme. Due to the very large CO2 gap that manufacturers needed to close between 2019 emissions and the 2020 target it was [very likely](#) many carmakers would have needed to use a disproportionately large share of available super credits in 2020 and have fewer available for 2021 and 2022.

Whilst carmakers will not benefit in the UK system from super credits earned through selling sub 50g/km cars in the UK in 2020 they will benefit from using these super credits to meet their EU targets - the allowances are therefore not lost but do not arise in the UK.

3.4 Minor & technical changes

T&E is generally content with the minor and technical changes proposed in the consultation and draft SI. We would, however, make the following observations:

1. Retaining the existing target figures for cars and light commercial vehicles is supported but misleading since the weighted average of the UK company targets will not equal these. This should be corrected as explained above.
2. The deletion of the “integrated approach” statement is appropriate; it was never a relevant part of this regulation and only inserted to justify the weakened 2015 target that is now obsolete.
3. Retaining the new percentage reduction targets for 2025 and 2030 for cars and vans is only appropriate as this SI translates the existing EU regulation. As explained earlier these targets are entirely incompatible with the proposed phase out of cars with engines by 2035 at the latest. Similarly the retention of the zero and low emissions vehicle benchmarks of 15% for both cars and vans from 2025, and 35% for cars and 30% for vans from 2030 illustrates the large gap between the proposed regulatory stringency and phase out objective.

- It is reassuring that the SI includes an article to ensure that the CO₂ emission values listed on each vehicle's certificate of conformity correspond to the CO₂ emission values of vehicles tested in-service. However, the recent DVSA testing [report](#) identified wide disparities between CoC values and DVSA tests as illustrated in the chart. In 3 models the difference between the DVSA and CoC results were over 20%; but despite the findings it appears the companies were not even questioned about the dubious Coc values, let alone regulatory action taken. It is essential there is follow through by regulators and the Secretary of State to ensure when companies are found to mis-state emissions action is taken to correct the values and when appropriate sanctions levied against the company.

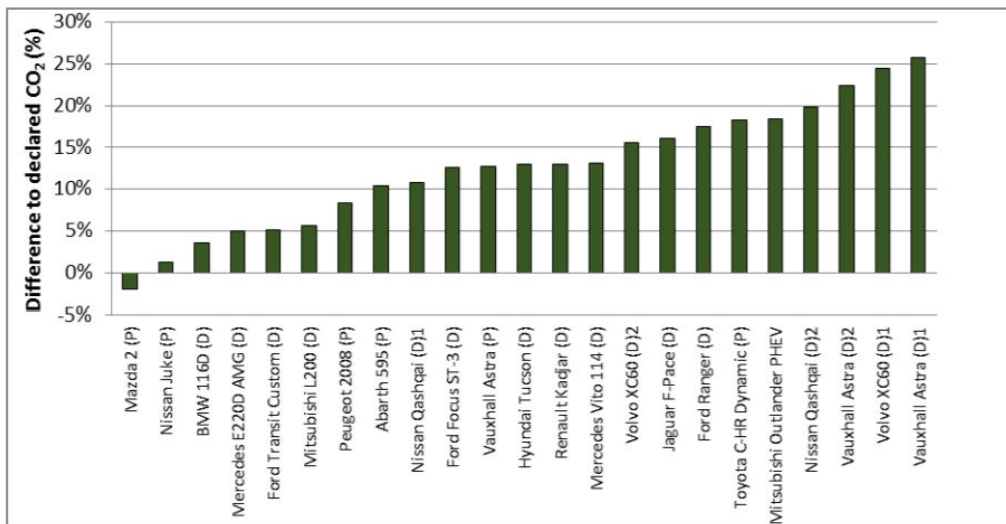


Figure 5-2: Percentage difference between the laboratory NEDC (cold) test CO₂ emissions and the type approval declared value

4. Conclusions

With the notable exception of the backdoor relaxation of targets by not adjusting for the heavier mass of UK vehicles the SI reasonably translates the EU regulation into UK law. In doing so the SI should ensure the UK continues to be supplied with electric vehicles at the end of the transition period for leaving the EU so long as it is in force by 1st January 2021. However, the proposals fail to take account of the more ambitious UK goal to phase out sales of ICE cars by 2035 at the latest and the proposed regulation is therefore entirely unfit to achieve this goal.

T&E has proposed that a zero emissions vehicle target is a more appropriate mechanism to progressively raise the share of these vehicles to 100% by the phase out date. This would require

carmakers to progressively increase the share of ZEVs sold in steps to the phase out date. The proposed SI could complement this by at a future date modifying the proposals to ensure that CO2 emissions from conventional engine vehicles continue to decline alongside the growth in (mainly) battery electric models. T&E has proposed that a zero emissions vehicle target should be operational from the start of 2024.

Overall the proposed regulation can be considered a sticking plaster to ensure there is some regulation of car and van CO2 emissions at the start of 2021 and ensure that supply of electric vehicles to the UK continues. In the absence of the regulation supply will almost certainly strongly reduce as carmakers will have no regulatory incentive to sell BEVs in the UK. However, in its current form the regulation will be entirely inadequate to achieve even a 2040 phase out.

Further information

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Annex

To estimate the number of zero emissions vehicles T&E has made the following assumptions:

1. The regulation will be met
2. The average emissions of ICE cars will be as shown in the table below
3. The sales of electric vehicles will be in the ratio PHEV : BEV 1:2
4. The average emissions of a PHEV will be as shown in the table below
5. The shift from WLTP will not affect the stringency of the regulation

	Target NEDC	ICE	PHEV	PHEV share	BEV share
Cars 2021 UK	100	109	50	3%	6%
Cars 2021 EU	95	105	50	4%	8%
Cars 2025 EU	80.75	100	45	8%	15%
Cars 2025 UK	85	102	46	7%	13%
Cars 2030 EU	59.375	95	40	15%	29%
Cars 2030 UK	62.5	95	40	13%	27%
Vans 2020 EU	147	155	90	2%	4%
Vans 2025 EU	124.95	145	80	6%	11%
Vans 2030 EU	101.43	135	70	10%	20%

The calculation assumes that: $\text{Target} = \text{Share}_{\text{ICE}} * \text{CO2}_{\text{ICE}} + \text{Share}_{\text{PHEV}} * \text{CO2}_{\text{PHEV}} + \text{Share}_{\text{BEV}} * \text{CO2}_{\text{BEV}}$
 Higher UK emissions are based upon [this](#) analysis.