

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

About Tesla

Tesla's mission is to accelerate the world's transition to sustainable energy. Founded in 2003, Tesla designs, manufactures and markets fully electric vehicles and solutions for the production and storage of renewable energy, which together create a sustainable ecosystem.

Today, Tesla is continuing to expand in the UK currently employing around 1500 people. We offer four electric car models: Model S, Model X, Model 3 and Model Y, all of which offer the highest possible safety and functionality. Tesla is laser focused on making electric cars increasingly affordable for more and more people, accelerating the transition to clean transport and renewable energy production.

On 18th May 2022 we launched our Non-Tesla Supercharger pilot in the UK in support of our mission to accelerate the world's transition to sustainable energy and increase uptake of EVs. This pilot covers 24 stations, meaning access to over 265 individual Superchargers for non-Tesla's. It has always been our ambition to open the Supercharger network to Non-Tesla EVs, and by doing so, encourage more drivers to go electric and support the wider transition. Eventually the plan to welcome both Tesla and Non-Tesla drivers at every Supercharger worldwide.

Executive Summary

The UK has shown global leadership in setting a phase out date for the internal combustion engine in cars and vans, to ensure that transport emissions are finally tackled in our road to zero. We welcome the start of a ZEV mandate in 2024 with legally binding targets and a parallel CO₂ regulation to control the ICE fleet. Dual regulations are best practice globally, we note that in no jurisdiction is there a flat CO₂ regulation. The UK's CO₂ proposal must be amended to a tightening trajectory to reflect global regulations and mitigate the risk that the UK is seen as a location for higher emission ICE vehicles.

A strong and certain ZEV trajectory is imperative for delivering on carbon budgets, consumer affordability, a competitive domestic market to drive investment, but also for crucial related industries for the transition, such as charging and energy services. It incentivises ZEVs sales and increases competition between manufacturers, whilst also ensuring that the second-hand EV market develops more quickly. *These elements are important for affordability and wider access to EVs.*

We welcome the stringency of the ZEV mandate from 2027, but note that the latest consultation proposals represent a very weak mandate in the early years. This introduces a wide range of uncertainty on ZEV supply due to the extent of borrowing and the CO₂ transfer mechanism. Therefore, introducing investment risk to related sectors, such as charging and energy services, whilst also disincentivising early action and competition in the UK.

Although the headline trajectory appears to be the same as the previous consultation, the CO₂ transfer flexibility and ability to borrow creates a deeply concerning new minimum trajectory as shown in figure 1, which is a vast departure from the last consultation.

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

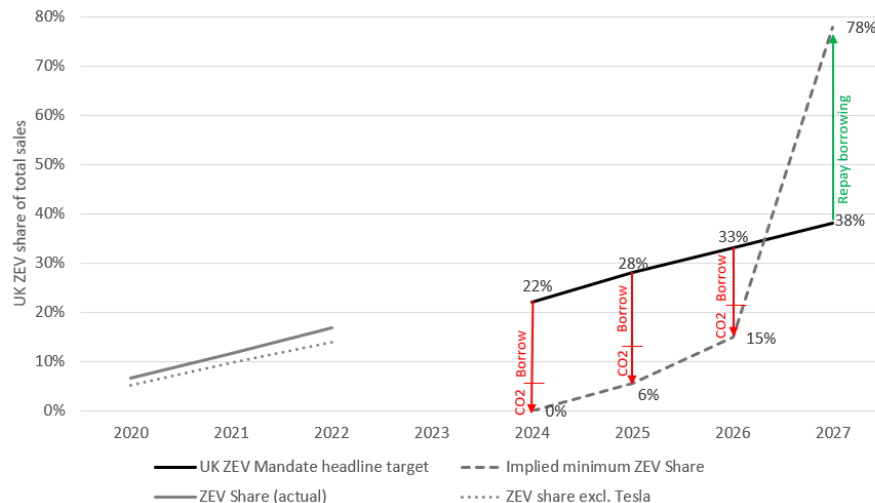


Figure 1: The headline trajectory is severely eroded by borrowing and the CO2 transfer. This creates a wide window of uncertainty for investment and the potential for a reduced supply of vehicles, which will impact consumers and competitiveness of the ZEV market

A new and further weakening of proposals alongside borrowing, is linking the CO₂ regulation, although we note this is only in the early years. This allows ICE vehicles, PHEVs and HEVs to participate in the ZEV mandate. The proposed flat CO₂ regulation with no future reductions is also not in line with global best practice, where tightening CO₂ regulations and increasing ZEV mandates are co-existing regulations, as seen in California and Canada. The UK is therefore creating a market where the ICE fleet emissions do not reduce, contrary to all other best practice globally. Importantly, increased carbon emissions will be locked in at a time when all incremental savings are desperately needed to meet carbon budgets.

Further, we note the Government's case for the introduction of ZEV flexibilities is based on the investment made 5-7 year in advance for ICE vehicles, this historic investment is based on tightening CO₂ emissions regulations. Therefore, if flexibilities are granted in the final version of the ZEV mandate on the basis of made investment, this also creates the case for a tightening CO₂ regulation as it reflects the historic investment. We note that the option for a tightening CO₂ regulation has already been assessed and consulted on in option 4 of the cost benefit analysis.

We wish to highlight the following strengths, issues, and recommended changes. The key principles at the heart of our response are:

1. Tackling climate emissions and early action to reduced locked in emissions from new ICE sales;
2. Consumer first; and
3. Creating a certain and competitive domestic market to attract UK investment in all sectors and drive access to EVs.

We highlight the following, in line with our key principles:

- We support annual legally binding targets beginning in 2024 to drive action year on year;
- The proposed ZEV trajectory from 2027 onwards is strong. A ZEV-only mandate sends a clear signal to industry. Although this severely weakened by the CO₂ transfer mechanism allowing ICE vehicles to participate until 2027 - the transfer mechanism should be capped at 10% and end on 1/1/27 as proposed;
- Borrowing should not be included. If borrowing remains limits should be halved to protect competition and carbon savings; we support repayment with interest in 2027;

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO₂ emissions regulation for new cars and vans in the UK

- Banking should not be included. Although, if banking remains, we support a 3-year time limit;
- We support a “tightening trajectory” for the parallel CO₂ regulation not a flat CO₂ regulation. A CO₂ regulation is required and globally, ZEV mandates and tightening CO₂ regulations co-exist. The current proposals for the UK CO₂ regulation are out of step with global regulation trends.
- Without a tightening CO₂ regulation, carbon emissions cannot be reliably controlled, and emissions could increase in the UK market. It is not enough to “trust” that emissions will continue to decline. There is no precedence for this globally.
- The proposal for a CO₂ baseline from 2021 and a trajectory that is flat, does not reflect the emissions trajectory for the ICE fleet based on already made investment. It provides an opportunity for higher emission and polluting SUVs to be placed into the UK market, where they are very popular.

Therefore, we recommend the following changes are implemented to bring the regulations in line with global best practice, protect the consumer, protect progress to date and carbon emission reductions:

1. Tighten the CO₂ emissions regulation:

Adopt the “tightening” trajectory with an annual emissions reduction of 2% but recommend the annual tightening start from the base year (2021), not 2024.

The OEM specific 2024 target should be 6% below 2021 levels. This reflects the business as usual (BAU) emission savings expected over the three years from 2021-24. This is due to improvements in existing ICE technology from OEM investments already made¹, and continued powertrain mix shift towards difference levels of hybridisation (MHEV, PHEV, HEV). The trajectory should then, tighten 2% per annum thereafter, as per option 4 in the economic assessment. This is based on investment already made to meet tightening CO₂ regulations in other countries and the expected increasing share of lower emission drive trains. Applied to Manufacturer A’s trajectory as an example below:

Non-ZEV emissions	2021	2024	2025	2026	2027
DfT	150	150	150	150	150
Proposal	150	141	138	135	133

2. Reduce flexibilities

(i) **The CO₂ transfer mechanism should be removed.**

As argued above, the CO₂ transfer mechanism has the potential to significantly undermine the stringency of the mandate and therefore the best solution would be to remove it entirely.

However, if this is not possible the transfer mechanism must only be included under a “tightening” or “lightweighting” trajectory CO₂ regulation. The mechanism should also be restricted to a 10% maximum transfer and must end and be paid back as proposed, in 2027.

¹ Toyota article on new PHEVs - https://www.fleetnews.co.uk/news/manufacture-news/2023/04/12/toyota-plans-to-launch-phevs-with-120-mile-range?utm_source=aimtell&utm_medium=push&utm_campaign=campaign-5415272

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

Any transfer mechanism erodes the ZEV targets, taken together with borrowing it creates a wide window of uncertainty on ZEV supply and therefore investment from industry. The transfer mechanism also creates an incentive to push PHEVs and HEVs into the UK market; this effect is compounded by the UK not yet implementing the utility factors seen in EU. The UK will therefore be more attractive for a PHEV than the EU in the early years.

CO2 cap	2024	2025	2026	2027
DfT	25%	25%	25%	0%
Proposal	10%	10%	10%	0%

(ii) **Borrowing should be removed to create maximum certainty of ZEV supply and therefore competitiveness.**

However, if this is not possible, borrowing levels should be at least halved and must end and be paid back as proposed in 2027. Low levels of minimum compliance do not encourage ZEVs to the UK market, and risk undermining progress to date. Consumers can only buy what is available in market, if there is a regulation that does not incentivise UK ZEV supply, there is no guarantee vehicles will be prioritised for the UK.

Borrowing	2024	2025	2026	2027
DfT	75%	50%	25%	0%
Proposal	37.5%	25%	12.5%	0%

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

Questions

Question 1: (a) Do you agree or disagree with the UK Government's preference to introduce a UK wide regulatory framework? (b) Or, do you agree or disagree with the introduction of different trading schemes with separate requirements in one or more of the nations, different from the rest of the UK?

We agree with a UK wide regulatory framework for simplicity

Question 2: (a) Do you agree or disagree with the UK Government's preference to introduce UK wide annual targets? (b) Or, do you agree or disagree with year-on-year targets having to be met within each nation of the UK annually?

We agree with UK wide annual targets for simplicity and effectiveness.

Question 3: Do you agree or disagree with the proposal for the central trajectory for new zero emission cars set out in Table 1?

Considering the new proposed flexibilities (borrowing and CO₂ transfer), we disagree with the central trajectory as the flexibilities allow stringency to be diminished by 75% on average over 3 years. Instead, we support the high trajectory, if these flexibilities must remain.

However, if the flexibilities are removed or severely tightened, we would support the central scenario. The flexibility permitted in other regulations such as California's latest ZEV mandate (ACC2) is ~50% reduction in stringency from the headline targets in the early years through four flexibility mechanism (covered later).

The UK has already made great progress with ZEV penetration. Strong regulation to protect this trajectory, rather than taking it backwards, is needed at this stage. Consumers can only buy what is in market. During Covid-19 the impact of reduced supply of vehicles was clearly seen in terms of competitiveness, ultimately harming the consumer. The common question of how to ensure ZEVs become more affordable is simply answered, by increasing supply and enabling natural competition and scaling to bring down costs. This is even more true in the UK than in European markets; since the UK is a right hand drive market the risk of 'leakage' of used EVs to other countries is almost non-existent.

Question 4: Do you agree or disagree with the proposal for the central trajectory for new zero emission vans set out in Table 2?

Our principles for the car trajectory and design apply to vans as well. We note an increased van trajectory, which is a step in the right direction for saving carbon emissions more quickly.

Question 5: Do you agree or disagree that the proposed derogations (thresholds and adapted trajectories) strike an appropriate balance between supporting small volume manufacturers while also ensuring that all manufacturers play a part in the transition to ZEVs?

No comments

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

Question 6: Do you agree or disagree with these proposals for the inclusion or exclusion of SPVs? If you disagree, please state your reasons for specific SPV categories.

Based on experiences in other jurisdictions this exclusion should be carefully monitored to avoid unintended consequences.

Question 7: Do you agree or disagree with the proposals for banking during the 2024-2030 period?

Agree, as this mirrors the proposal for borrowing for 3 years.

The regulation must retain the proposal that banking overcompliance is not allowed whilst borrowing. Banking with time limits for credits allows vehicle sales to occur sooner to the consumer benefit and climate benefit. Borrowing only delays sales, which worse for consumer choice and emissions.

Question 8: Do you agree with the proposed provisions for borrowing in the 2024-2026 period? If you disagree with the proposal, please provide alternative options and your rationale.

Disagree. The proposed borrowing levels have reduced the stringency beyond any mechanism seen globally. If borrowing caps are fully utilised, the stringency is reduced by 75% over 3 years. Globally, there is not a single compliance flexibility which has this reductive effect on stringency. In California, if all four compliance flexibilities are fully utilised in the first three years of the new ZEV mandate (ACC2), then stringency is reduced by ~50%. The four flexibilities in the California mandate are as follows:

- 1) Converted (historical) credits from credit bank – maximum 15% reduction of annual target
- 2) PHEVs contribution – maximum 20% reduction of annual target
- 3) Environmental Justice Allowance – maximum 5% reduction of annual target
- 4) Early Compliance Vehicles – maximum 15% reduction of annual target

We would support removal of the borrowing mechanism, as this does not drive the right outcomes for consumers in the new or second-hand market or overall transition. This is due to the likely impact of constrained supply, competitiveness of markets and impact on crucial linked sectors such as charging.

Further, the borrowing cap is too high and is not required. When modelling the likely borrowing requirements of manufacturers in the UK with a low ZEV share, we forecast less than 50% borrowing will be required in the first year of the mandate. The borrowing limit creates a 5.5% delivery target in 2024 for ZEVs, without use of the CO₂ transfer mechanism. This enables shares of ZEV sales in 2024 that are far below delivery in 2021. Based on forecasts this borrowing facility will not be required to enable compliance in 2024. Therefore, if borrowing remains as a mechanism, the proposed borrowing limits should all be at least halved.

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

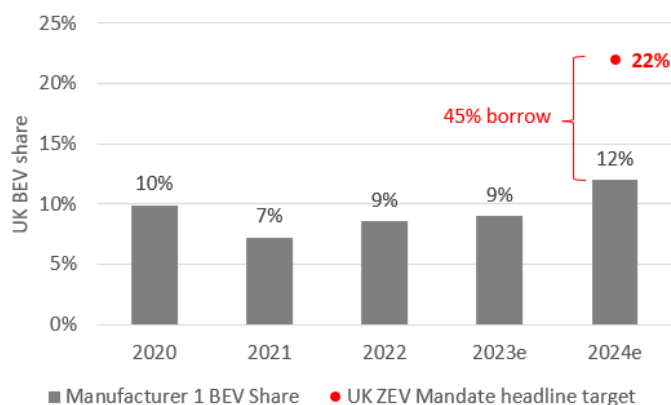


Figure 2: BEVs delivered annually historically and future estimates are all far above the 5.5% minimum target that the proposed borrowing facility creates for 2024.

Question 9: What are your views on the proposed minimum requirements for ZEVs (emissions, minimum range and warranty)?

We support the minimum requirements, although we would recommend an increase on the minimum range.

Customers tell us they want long range vehicles and are concerned about range. The objective of ZEV uptake is to fully displace ICE vehicles and remove CO₂ emissions. Long range ZEVs are necessary to fully replace a fossil-fuelled vehicle, rather than stimulate second car purchases.

Consumers preference tends towards longer range vehicles as shown by the best selling vehicles in the UK. Creating a minimum requirement of 120 miles range for a vehicle is far below what the market is delivering, which is on average over 200 miles. Regulation should not create an incentive to do less and create compliance cars. Given the most expensive component of a car is a battery the shortcut to creating cheaper vehicles is smaller battery packs. Rather than the effective way, which is through innovation and continued investment in R&D. We are concerned that a 120-mile minimum creates the potential to do less, which could undermine the transition. For comparison the California mandate has 200 miles as a minimum. We would therefore encourage government to:

- (i) award 200 miles 1 certificate and cars under 0.5 of a certificate; or
- (ii) increase the minimum threshold to 200 miles this is aligned with the California mandate

Question 10: Are there additional minimum requirements that should be added to the regulation (in the first year or at a later point)? Please provide your rationale.

No additional points. Changing requirements in the future just adds additional uncertainty.

Question 11: Do you agree or disagree with the proposal to provide additional credits to ZEVs used in car clubs? Are there any additional criteria or provisions that can increase the effectiveness of these incentives? Please explain your reasoning

Car clubs are important for shared mobility, however the penetration of EVs in car clubs is broadly in line with the rest of the market, therefore the case for additional incentivisation to correct a failure is not there. Additional credits further reduce the stringency of the targets. Sales to car clubs should only receive 1 certificate.

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

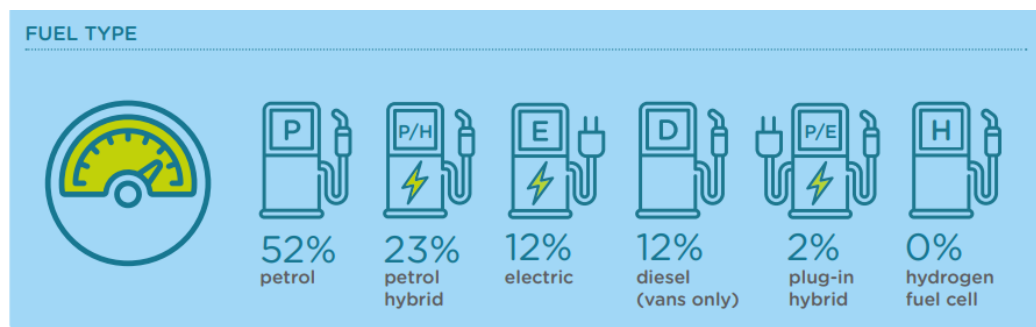


Figure 3: Car Club annual report 2021², for comparison BEV market share was 11.6% for 2021

Question 12: Is the proposed incentive mechanism an appropriate and beneficial way to support the development of zero emission WAVs?

Yes, we support it.

Question 13: What are your views on the proposed payment levels in the ZEV mandate?

They are sufficient as proposed.

Grouped answer for questions 14, 15 and 21

Question 14: What are your views on the proposed methodology to set baseline CO2 emissions targets for manufacturers?

Question 15: Do you support the flat scenario, the tightening scenario, the lightweighting scenario or a different trajectory for the CO2 standard? Please explain.

Question 21: What are your views on this proposed mechanism to enable overcompliance with the non-ZEV CO2 standard to help toward compliance with the ZEV mandate targets?

Summary of recommendations:

- (i) The CO₂ regulation must not be a flat trajectory, instead a tightening or lightweighting trajectory must be implemented. This represents global best practice where tightening CO₂ emissions exist alongside ZEV mandates;
- (ii) We support the adoption of the tightening trajectory with the annual emissions reduction of 2%. However, we recommend the annual tightening starts from the base year (2021), not 2024. This accounts for continued savings from R&D investment and increased share of low emission drivetrains; and
- (iii) Overcompliance with the non-ZEV CO₂ standard should not contribute to ZEV targets under a flat scenario. The mechanism could be considered, only if the CO₂ regulation tightens year on year, but any transfer mechanism must be restricted to a 10% contribution.

² https://uploads-ssl.webflow.com/6102564995f71c83fba14d54/632885c07c790d2577d1445f_CoMoUK%20Car%20Club%20Annual%20Report%20UK%2021.pdf

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

CO2 Regulation Trajectory

We support the adoption of the tightening trajectory with the annual emissions reduction of 2%. However, we recommend the annual tightening starts from the base year (2021), not 2024. This aligns with the expected trajectory of emissions reduction, which is the result of (1) already-spent R&D budgets over the last few years to improve existing ICE technology and (2) the powertrain mix shift towards higher levels of hybridisation, (MHEV, HEV and PHEV) which mechanically reduce fleet average emissions.

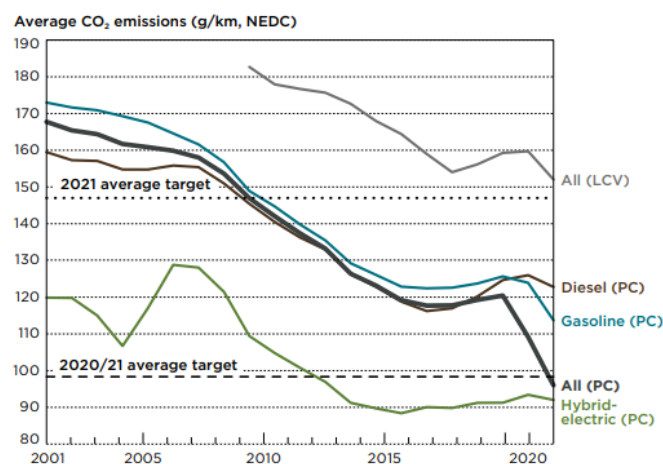


Figure 4: Average CO₂ emissions by engine technology. Diesel and Gasoline emissions expected to continue long-term trend of 2% reduction per year. Source: ICCT European Vehicle Market Statistics Pocketbook 2022/23

Simply, a 6% reduction should be applied to the 2021 baseline and then 2% year on year as per option 4 in the cost benefit analysis. Regulations for the UK must capture the downwards business as usual trajectory and global best practice for non-ZEV CO₂ emissions. Figure 5 below demonstrates the powertrain mix trajectory and figure 6, shows the UK emissions trajectory, calculated by multiplying UK powertrain mix with EU emissions per powertrain.

UK Powertrain mix 2018-2022

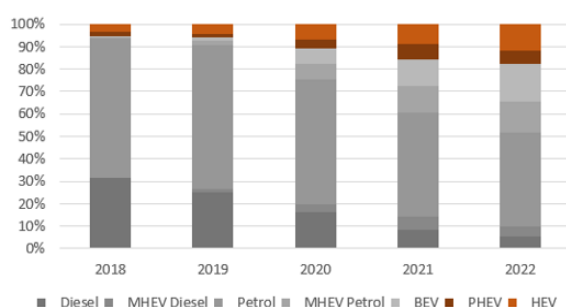


Figure 5 SMMT figures showing increased hybridisation³

Non-ZEV emissions reduction due to powertrain mix shift

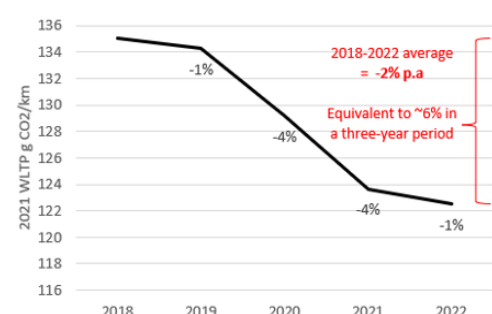


Figure 6: Annual emissions based on historical non-ZEV UK powertrain mix (SMMT 2018-2022) and 2021 EU WLTP emissions per powertrain – demonstrating the recommendation for 6% over 3 years from 2021 to 2024⁴

³ <https://www.smmt.co.uk/2023/01/chip-crisis-subdues-new-car-market-but-evs-now-second-only-to-petrol/>

⁴ Data from <https://www.smmt.co.uk/2023/01/chip-crisis-subdues-new-car-market-but-evs-now-second-only-to-petrol/> and CO₂ emissions from new passenger cars registered in EU27, Iceland (from 2018) and Norway (from 2019) – Regulation (EU) 2019/631

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

The current proposals for a flat trajectory and a CO2 transfer mechanism, create an incentive to sell further HEVs and PHEVs into the UK market, displacing ZEVs. This mechanism could accelerate the HEV and PHEV mix seen in figure 5. We therefore oppose a flat CO₂ regulation. Instead, the “tightening” trajectory or “lightweighting” trajectory should be adopted alongside the ZEV mandate, especially if the proposed CO₂ transfer mechanism remains. This reflects global tightening CO₂ regulations that co-exist with ZEV mandates. It has been suggested that a tightening regulation and a ZEV mandate is double regulation, creates too much complexity and demands additional investment. However, investment has already been made in advance, on the basis that tightening regulations and global regulations demand CO₂ emission reductions out to at least 2032, as demonstrated below. The UK should ensure it stays in step with global regulation trends.

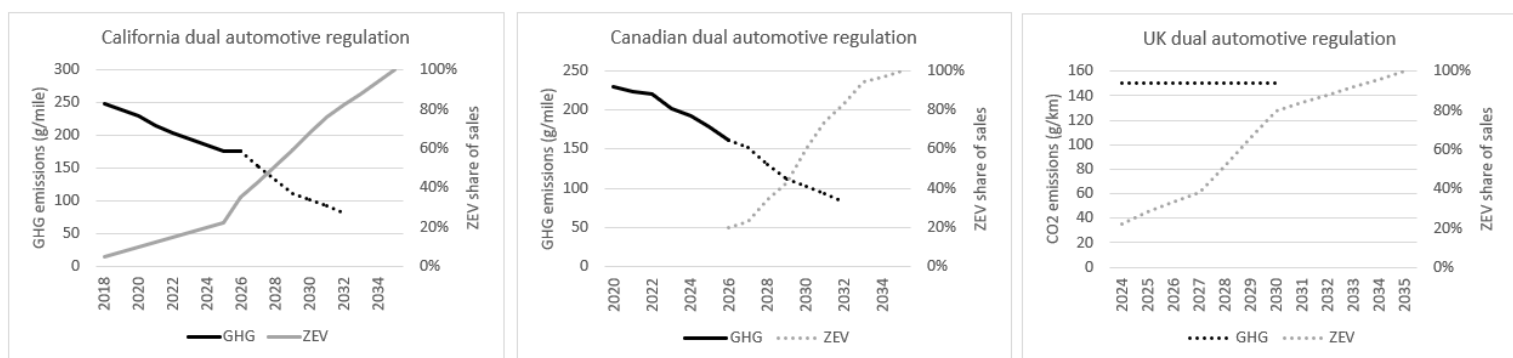


Figure 7: Both California and Canada provide current, real-world examples of dual regulation in place simultaneously for ZEV and CO₂ regulations. Solid lines are fixed regulations, dotted lines are proposed regulations. For comparison the UK proposed regulation has been included. Sources: California Air Resources Board and Government of Canada, Department for Transport.

Furthermore, we note the comments under paragraph 64 of the Government’s Cost Benefit Analysis, which state that the real-world emissions trajectory of ICE vehicles will not mirror the 2% annual reduction in WLTP-based reported values. We strongly disagree with the inputs to this analysis, shown in Table 22 of the cost benefit analysis, which is copied below for completeness. For the Car category, this table fails to account for any improvement in ICE technology from 2024-2030, which will be achieved from R&D spent over the past years. Deployment of these improvements in the future is part of the normal cadence of product cycle refreshes. Vehicle Manufacturers are constantly improving engine technology and powertrain efficiency continues to be a tool of differentiation between manufacturers. There is no reason why the latest engine technology will not be deployed across the entire remaining ICE fleet by 2030. This future planning is also demonstrated by the statement from the cost benefit analysis that “Some manufacturers may require additional flexibilities in the early years of the policy because production plans can be set 5-7 years in advance”.

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

Table 22 Estimated new sales real-world gCO₂/km efficiencies for Policy Option 4

Vehicle type	Drive train	2024	2025	2026	2027	2028	2029	2030
Car	Petrol ICE / HEV	165	165	164	164	165	165	165
Car	Diesel ICE / HEV	187	187	186	187	187	187	187
Car	Petrol PHEV	137	137	137	137	137	137	137
Car	Diesel PHEV	134	134	134	134	134	134	134
Van	Petrol ICE / HEV	145	142	140	137	134	131	129
Van	Diesel ICE / HEV	209	205	201	197	193	189	185
Van	Petrol PHEV	169	165	162	159	156	152	149
Van	Diesel PHEV	159	155	152	149	146	143	140

Therefore, the Government's own economic analysis demonstrates that OEMs plan investment cycles 5-7 years in advance and tightening CO₂ regulation were, and continue to be the expected pathway globally. The argument that a tightening CO₂ regulation is double regulation and would require more investment, is at odds with the statement that investment has been made for the next 5-7 years. Given this is the basis for including flexibility mechanisms in the ZEV mandate, for consistency and to reflect technology conditions globally, if flexibilities remain, a tightening CO₂ regulation should be included. This is further supported by a recent examples below from [12 May 2023](#) and [22 May 2023](#)

Automotive News Europe

HOME FEATURES OPINION PHOTOS PODCASTS CAR CUTAWAYS EVENTS MORE

May 22, 2023 10:05 AM | UPDATED 5 HOURS AGO

VW Group gives Skoda responsibility for core TSI gasoline engines

Skoda said it will develop more powerful and more fuel-efficient engines with lower emissions for parent VW Group brands including VW, Audi and Cupra.

NICK GIBBS

TWEET SHARE IN SHARE EMAIL PRINT

FleetNews NEWS TOOLS FLEET MANAGEMENT ELECTRIC FLEET CARS

Toyota plans to launch PHEVs with 120-mile range

12/04/2023 in [Manufacturer](#)

[electric and hybrid vehicles](#)

Was this article useful?
2 people found this useful



strengthened line-up of electric and hybrid cars.

Toyota is continuing its investment in plug-in hybrid (PHEV) technology, with the aim to launch models that cover more than 120 miles on a single charge.

The carmaker plans to position its future PHEV models as the "practical BEV", sitting alongside a

CO2 transfer mechanism

The CO2 regulation should not be linked to the ZEV mandate and overcompliance in the CO2 regulation must not contribute to the ZEV mandate targets; this mechanism directly displaces ZEVs

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

and reduces stringency of the ZEV mandate. This flexibility enables OEMs to choose a deployment strategy that reduces supply of ZEVs. Any linkage erodes the number of ZEVs on the road, ultimately contributing to locked in CO2 emissions, reduced supply of ZEVs and therefore impacting affordability for consumers. The transfer mechanism creates an incentive to push PHEVs and HEVs into the UK market; this effect is compounded by the UK not implementing the utility factors seen in EU. Meaning that a PHEV will have a lower WLTP reading in the UK as compared to the EU, therefore making it more valuable to sell it in the UK, due to the advantageous contribution to compliance.

The UK has already made good progress with ZEV penetration. Strong regulation to protect this trajectory, rather than taking it backwards, is needed at this stage. Globally countries are racing to increase ZEV share domestically and the UK must ensure it is prioritised.

If the CO2 regulation must be linked to provide flexibilities in PHEVs and HEVs participating in a ZEV mandate, a tightening CO2 regulation must be implemented for the reasons already outlined.

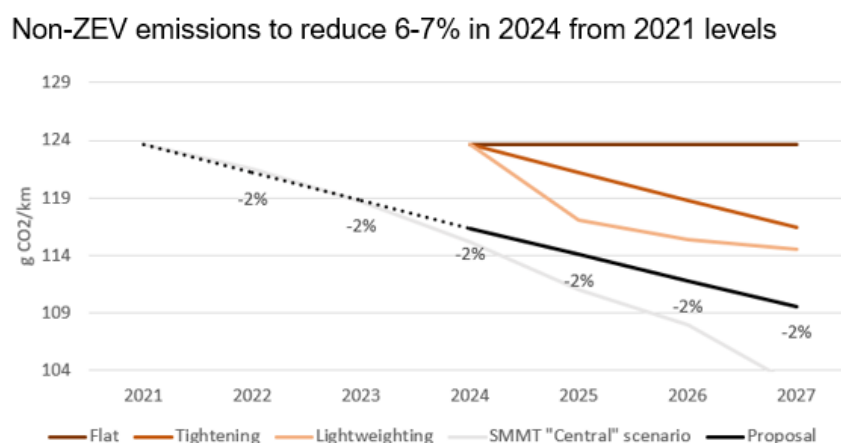


Figure 8: Expected emissions versus Government proposals to use 2021 levels as a flat line out to 2030

Figure 8 shows industry as a whole at 124g CO₂/km in 2021. Overlaid is SMMT's forecast for the powertrain mix, applied to forecasts, which conservatively assume ICE emissions reduce by 1% p.a. This shows that emissions will likely fall far below a 2% year on year tightening scenario in option 4 of the cost benefit analysis, due to the increase lower emission drive train penetration (as previously set out).

The gap is clear to see between the proposed flat trajectory and the expected trajectory based on SMMT's central scenario. This creates a clear "wedge" of CO2 savings, from investment already made in ICE vehicles versus the flat line. This "wedge" of "savings" versus a flat baseline that can be transferred into ZEV credits represents a "freebie" to all OEMs and immediately undermines the stringency of the ZEV mandate. These CO₂ emissions will be used to generate ZEV allowances rather than selling ZEVs.

Below illustrates how the mechanism can be used to the maximum advantage, this aligns almost exactly with what we expect from industry emissions reductions. Therefore, removing around 90,000 new ZEVs in 2024, just through the CO₂ transfer mechanism.

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

Maximising Non-ZEV allowance transfer in 2024	
	UK
UK sales	1,600,000
ZEV target	22%
ZEV sales target	352,000
Assume max borrowing	75%
Assume max non-ZEV allowance transfer	25%
non-ZEV allowance transfer (lost ZEV sales)	88,000
Converted to CO ₂ allowances	14,696,000
Required non-ZEV emissions reduction	9.2 g CO ₂ /km
Required non-ZEV emissions reduction (2021-2024)	7.4% (2.4% p.a)

Figure 9: Calculations to show how the 25% non-ZEV allowance transfer can be reached in 2024 by a manufacturer improving their emissions by 2.4% per annum from 2021 levels

We therefore recommend the following changes to the CO₂ regulation baseline and transfer mechanism:

1. ***Tighten the CO₂ emissions regulation: Adoption of the tightening scenario with the annual emissions reduction of 2%. We recommend the annual tightening starts from the base year (2021), not 2024.***

The OEM specific 2024 CO₂ target should be 6% below 2021 levels. This reflects the BAU emission savings expected from 2021-24 due to changes in drive train mix and OEM investment in ICE technology that has already been made. The trajectory should then, tighten 2% p.a. thereafter, as per option 4 in the economic assessment. This is based on investment already made to meet tightening CO₂ regulations and the expected increasing share of lower emission drive trains.

2. ***Remove, or tighten the CO₂ transfer mechanism to reduce the displacement of ZEVs, or increase the ZEV targets overall to the high scenario***

Any transfer mechanism erodes the ZEV targets, taken together with borrowing, it creates uncertainty on ZEV supply and therefore investment from industry across sectors, including charging. The transfer mechanism also creates an incentive to push PHEVs and HEVs into the UK market; this effect is compounded by the UK not yet implementing the utility factors seen in EU. The UK will therefore be more attractive for a PHEV than the EU in the early years. Any inclusion of a transfer mechanism *must* be capped at 10% and *must* be coupled with a tightening CO₂ regulation as per recommendation 1.

Question 16: Does the proposal for derogations under the non-ZEV CO₂ standard strike an appropriate balance between supporting small volume manufacturers and minimising increases in emissions from combustion engine vehicles?

No comments

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

Question 17: What are your views on the proposed categories for exemptions from the non-ZEV CO2 standard?

No comments

Question 18: Do you agree or disagree with the proposal for how pooling would operate under the ZEV mandate and non-ZEV CO2 standard?

No comments

Question 19: What are your views on the proposed method for setting non-ZEV CO2 targets for new manufacturers entering the UK market?

No comments

Question 20: What are your views on this proposed mechanism to enable overcompliance with the ZEV mandate to help toward compliance with the non-ZEV CO2 regulation?

We support this in theory, as it could incentivise early action on ZEVs.

However, given 2024 emissions will likely be below the 2021 baseline, and the CO2 regulation is not proposed to tighten, the incentive to use ZEVs to reduce CO2 emissions is not strong. We would support a tightening or lightweighting CO2 regulation to incentivise early action on ZEVs.

Question 21: What are your views on this proposed mechanism to enable overcompliance with the non-ZEV CO2 standard to help toward compliance with the ZEV mandate targets?

Already answered with grouped questions 14 and 15. See above.

Question 22: What are your views on the levels and structure of the proposed payment system for the non-ZEV CO2 regulation?

No comments

Question 23: What are your views on the proposed timeline and process for reporting data and meeting compliance with the ZEV mandate and non-ZEV CO2 scheme?

No comments

Question 24: Do you support or oppose the proposal to keep the regulation under review?

We oppose keeping the regulation under review because:

Tesla Response to the Department for Transport Consultation: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

- (i) This introduces further uncertainty to the marketplace and investment in related sectors that will rely on ZEV sales for their business models, for example charging.
- (ii) the proposed flexibility mechanisms reduce stringency by 75% over 3 years. Taken together with a review, use of the flexibilities could form the basis for an argument for reduced targets. If the regulation must be reviewed, a safeguard must be put in place where targets can only increase.

Question 25: What are your views on the potential impact of the two proposed schemes on communities in the more rural and remote parts of the UK and to those businesses involved in the sale of vehicles in those areas?

No comments