# REA Response: A zero emission vehicle (ZEV) mandate and CO2 emissions regulation for new cars and vans in the UK

The Association for Renewable Energy & Clean Technology (REA) is pleased to submit this response to the above consultation. The REA represents a wide variety of organisations, including generators, project developers, fuel and power suppliers, investors, equipment producers and service providers. Members range in size from major multinationals to sole traders. There are over 500 corporate members of the REA, making it the largest renewable energy trade association in the UK.

The REA EV Forum represents over 100 companies operating across the electric vehicle charging infrastructure value chain, from public Charge Point Operators to energy suppliers, eMobility Service Providers, roaming hubs, installers, manufacturers, and financiers. The REA's EV Forum has been active since 2018 and in 2020 the UK Electric Vehicle Supply Equipment Association merged its operations into those of the REA.

## REA summary of members views of this response

This consultation response focuses on the key issues of concern to REA members. Overall, the REA is highly supportive of the ZEV mandate and the ambition the Government has shown in this space. However, we do have some concerns.

This consultation response therefore focuses on:

- Supporting the sales targets for cars and vans in the UK up to 2035.
- The success of the ZEV mandate being dependent on the strength of its ZEV sales targets; therefore, it should be made clear in the legislation that the sales targets cannot be reduced, only strengthened, other than in times of force majeure which may warrant a temporary reduction in the targets for that year.
- Our concerns regarding the significant number of options available to manufacturers to reduce levels of compliance with the targets for ZEV sales and CO2 emissions targets. This represents a significant departure from the 2022 technical consultation which made clear the Government would not consider banking or borrowing of credits.
- As a result of the generous mechanisms such as borrowing, early levels of CO2 reductions are likely to be reduced which will likely be detrimental to long term CO2 emissions reductions targets and make carbon budgeting harder to forecast and fulfil.
- Incentives for the development of zero emission WAVs could go further and could incentivise manufacturers to produce zero emission WAVs directly, reducing waiting times for wheelchair users wanting to purchase a WAV.
- Government should consider the lifetime emissions of vehicles produced by manufacturers, particularly in instances of pooling where one manufacturer will be able to produce vehicles with a higher level of gCO2/km as a result.
- Our support for the proposed payment system for non ZEV C0² regulations.

## Consultation Questions

**1. (a) Do you agree or disagree with the UK Government's preference to introduce a UK wide regulatory framework?**

The REA agrees that one scheme and a common UK-wide regulatory framework from 1st January 2024 would be the most effective way at ensuring EV rollout is consistent and easy for industry to work with while also ensuring that devolved administrations couldn't have a weaker mandate or none at all which would jeopardise EV rollout across the whole of the UK.

**(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? Please explain your answer.**

The REA disagrees that there should be separate trading schemes with separate requirements as this would be confusing to both car manufacturers and also chargepoint operators who would have to deploy more resources in predicting different demand patterns across the different nations of the UK, which would add a significant cost burden.

**2. (a) Do you agree or disagree with the UK Government's preference to introduce UK wide annual targets?**

The REA agrees that UK wide annual targets are the best way to ensure consistency across the UK and ensures those within the industry such as CPOs are able to more accurately predict chargepoint demand across the next decade or so.

**(b) Or, do you agree or disagree with year-on-year targets having to be met within each nation of the UK annually?**

The REA agrees that year on year targets are the best way to ensure that ZEV sales increase at the scale required to decarbonise road transport in the UK. To reiterate, this should be UK wide rather than with different targets per nation as this could create an unwelcome position where one country could choose to set less ambitious ZEV sales targets and consumers who want to purchase ICE vehicles who can't in for example England could travel to Scotland or Wales and purchase one there but drive it in England. This would be hugely problematic for wider UK decarbonation targets, and we strongly urge the Government to stick with their initial position of setting UK wide targets.

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

Although the REA is supportive of the overall sales targets of 22% in 2024 rising to 80% in 2030 and 100% in 2035, **we believe that it is highly likely that demand for EV's will rise beyond the figures in table 1**, and see it as highly likely based on the current excess demand for EV's seen though year long waiting lists reported by some car manufacturers that demand could still outstrip supply of EV's if the continued support for EV's rises in the next decade at the same levels it has done to date. This would imply a higher sales target might be possible.

We are also aware that behind the wider context of this consultation is a referendum on whether January 2024 is a deliverable date for the ZEV mandate. The REA and a significant proportion of industry have in our conversations with DfT indicated it is and the detrimental effect it would have on the UK's emissions targets, the impact it would have on a still developing charging industry and the impact this would have to UK's standing on the world stage as a leader in decarbonisation. We would welcome the opportunity to engage further with DfT on this point, if DfT began re-examining the date of implementation which we believe would be a mistake to do so.

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

**The REA is pleased to see that table 2 reflects feedback from ourselves and others which indicated that higher van targets were preferred and feasible.** We overall agree that the central scenario presented in Table 1 is an accurate and fair representation of where industry thinks Zero emissions van sales could be by 2035 and would welcome the opportunity to engage with OZEV in more detail on Van decarbonisation and HGV decarbonisation in future.

**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?**

We note that small and micro manufacturers are exempt from the targets until 2030, which we believe strikes the right balance that ensures that small and micro manufacturers have the time they need to ensure they produce ZEV's from 2030. Enabling them to play a part from 2030 is a sensible measure to ensure that all the UK's car manufacturers will be compliant with the ZEV mandate by 2035.

**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.**

The REA is supportive of the retrospective action listed in 2.47 which says that if it becomes clear that certain categories of SPVs can feasibly and economically be produced as ZEVs, they may be brought within the scope of the mandate. We believe this is a sensible approach that enables the ZEV mandate to be flexible and encompass more SPV types as the technology progresses. The reward of one ZEV credit for each ZEV vehicle produced in this way represents an effective way to accelerate decarbonisation of SPVs.

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

The REA in principle supports the Government's efforts to incentivise early reductions in carbon emissions by rewarding manufacturers who deploy more ZEV's, more quickly.

However, it is unclear from the consultation what happens to banked allowances for 2028, 2029 and 2030. If these carried over to 2031, 2032 and 2033 and allowed a lower standard of PHEVs this would be detrimental to the Government's own targets and the REA would not support this. The seven years (2024-2030) plus the 2 years of consultation period we believe could be more than enough time for manufacturers to meet the sales targets decided by Government.

Indeed, we would urge the Government to reduce the cut off period from 2030 to 2027 in line with the generous borrowing mechanism outlined in the consultation. This level of generosity was not afforded to a still developing chargepoint sector when the Smart Charging Regulations were introduced and to see a car manufacturing sector with over a century of history and development be given hugely generous allowances goes beyond any cited problems with the manufacturing timelines and supply chains for car manufacturers cited in the consultation.

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.**

The REA is concerned that the levels of borrowing cited in this consultation is overly generous and goes against its own argument that there are huge benefits to larger levels of carbon reductions now, which is the reason given in 2.57 for Banking. The consultation admits that borrowing would severely weaken sales targets in the first 3 years. Indeed, the proposed 22% sales target for 2024 would fall to 5.5% (75% borrowed), the 28% sales target for 2025 would fall to 14% and the 33% sales target for 2026 would fall to 24.75% if all manufacturers were to maximise on their borrowing allowances.

We propose instead that to ensure sales targets are realistic and that manufacturer compliance with the targets by 2027 is achievable, that a less generous set of borrowing targets is set that ensures initial levels of decarbonisation are higher to maximise the benefits of the transition to ZEV's. For 2024 we would suggest 50%, for 2025 we suggest 25% and 2026 we suggest 12.5% so that the gap between realised ZEV sales and the 2027 target is reduced, making future compliance more certain and ensuring early levels of decarbonisation are realised.

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

Overall, we are supportive of the proposed minimum requirements for ZEV's. We see the range and warranty levels as sensible to boost public confidence in EV's, particularly in the short-term combating range anxiety.

However, the inclusion of hydrogen fuel cells without hydrogen fuel provenance assurance is problematic to our EV Forum members. It is not clear in the consultation as it is in the 'Outcome and response to the consultation on when to phase out the sale of new, non-zero emission HGVs'[1] which indicated the Government supported hydrogen fuel cells or hydrogen in combustion engines only if the hydrogen was renewable. We would welcome clarity on this in the Government's response. We understand that tracking the life journey of hydrogen would be a significant undertaking but see this as the only viable way to ensure that ZEVs do not support the digging up of oil and gas to be burned at a different stage in the cycle as this will mitigate the desired impact on air quality.

**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.**

The REA believes that, **once plug-and-charge communications protocols have been agreed under an international standard, this should swiftly be added as essential criteria under the ZEV Mandate**. This will ensure that consumers benefit from the convenience of plug-and-charge technology at the soonest possible opportunity.

As the ZEV rollout increases and chargepoint rollout enables shorter stops and greater access to charging there should be a review of the requirements for ZEVs in 2030. At this point we expect range anxiety to be less of an issue as chargepoint rollout will enable significantly better access to charging both in private and public settings. This will mean it may be worth reviewing the 120-mile metric rightly asked for by Government presently. This may involve shortening the range, not so much as to allow hybrids within the ZEV definition but enough to reflect the anticipated behaviour change of the public, which is widely anticipated to charge more frequently as charging infrastructure becomes more readily available. This will ensure that this does not disincentivise ZEVs that are shorter-range by design (e.g. urban vehicles, supermini class, etc.).

**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.**

Overall, the REA is supportive of measures to increase the number of ZEVs used by car clubs and in principle we support this. However, we do not see the best way to do this is by rewarding manufacturers. Instead, we believe that car clubs should receive

[1] https://www.gov.uk/government/consultations/heavy-goods-vehicles-ending-the-sale-of-new-non-zero-emission-models/outcome/outcome-and-response-to-the-consultation-on-when-to-phase-out-the-sale-of-new-non-zero-emission-hgvs

discounted ZEVs to incentivise uptake. With price still being a major barrier to much of the population, we would urge Government to set up bespoke carrot mechanisms for car clubs to purchase ZEVs.

Presently the idea that a ZEV used for a car club may take x number of cars off the road is a good thing. However, the idea that the purchase of a ZEV by a car club will allow car manufacturers to manufacture less ZEVs in 3 years' time (2 years in a car club before counted) when at this point in time it will be easier to manufacture ZEVs is counterproductive and damaging to the overall sales targets and predictability for CPO's and chargepoint manufacturers coming from EV demand.

We also see the role of subscription services as an area which could benefit from additional credits. Subscription services offer one of the lowest cost ways for consumers to own an EV and therefore should be incentivised. Credits could be used by subscription services to lower the cost per month to the consumer,

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

**The REA is supportive of increasing accessibility to WAVs.** We see the incentive for manufacturers to produce ZEVs that can be converted as a sensible measure to ensure wheelchair users can have freedom of mobility. However, we think this could be more ambitious and would suggest that manufacturers who produce zero emissions WAVs should also receive at least an additional 0.5 credits. This we believe will incentivise and speed up production of zero emissions WAVs. (It could also possibly reduce the time it takes to produce a WAV by possibly by-passing the conversion step).

**13. What are your views on the proposed payment levels in the ZEV mandate?**

The REA is supportive of the strong fines and payment levels indicated in the consultation. This will incentivise manufacturers to comply or face proportionate levels of financial hardship which will ultimately be answerable to their shareholders. However, we note the Government state that fines should be greater than the cost of producing a ZEV. However, the fines listed, as £15,000 for cars and £18,000 for vans are almost exactly half the cost of purchasing a new ZEV today, therefore may need strengthening. We understand these figures are based on carbon emission costs and similar to those in North America but may need strengthening if the price of carbon (via the Government-set Carbon price) rises in future.

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

The REA sees the 2021 baseline as a sensible approach to setting emissions targets for manufacturers. On the whole since 2021 manufacturers should now be producing less ICE vehicles as a proportion of their fleet than they did in 2021. But we understand that this cannot be applied retrospectively and therefore are supportive of maintaining 2021 as the baseline figure.

**15. What are your views on the proposed methodology to set baseline CO2 emissions targets for manufacturers?**

**The REA support option 4, the Central ZEV; incremental efficiency improvements scenario in the cost benefit analysis[2] calling for a 2% reduction on the baseline target year on year.** We do understand the Government's desire for a predictable level that can be more easily inputted into future carbon budgets, however in section 3.17 the consultation mentions carbon emissions were 14% lower in 2021 than in 2019, and 9% lower for new vans. We would expect with changes in the drive train mix and emissions trajectories going downwards on all OEMs fleets that already from 2021 manufacturers will already have improved their vehicles emissions by at least 2% a year.

Therefore, from 2024 the baseline should be set as minus 6% of the 2021 baseline, declining by 2% a year after this, for example in 2025 the baseline would be 8% less than the 2021 baseline. With ICE vehicles having up to 20 years on the road on average we recommend that emissions targets are as ambitious as possible and this scenario is the most ambitious, but also a realistic target manufacturers could be expected to meet due to the reasons mentioned above and also with potential developments in E20 fuel which new vehicles could use.

**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?**

Although the REA understands the reasoning for the derogation in this instance, and we are supportive of small businesses, we see the lifetime emissions of their ICE vehicles as problematic and would suggest the Government examine alternative ways to make up for the environmental impact these vehicles will do over their lifetime. Moving to E20 fuel as rapidly as possible is one such measure.

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

The REA will not be answering this question.

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

**The REA disagrees that pooling on top of the significant allowances for manufacturers to date should be included in the legislation.** Pooling would allow manufacturers with lower average CO2 levels (Manufacturer A) to be less ambitious in their CO2 reductions by pooling with a manufacturer from within their wider organisation that produces vehicles with higher CO2 emissions (Manufacturer B), bringing up the average CO2 emissions Manufacturer A would need to meet in future

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2 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1154612/zev-mandate-cost-benefit-analysis.pdf

years. This inadvertently incentivises less innovation and poorer air quality for the lifetime of that manufacturers vehicles than would otherwise be the case if they had not pooled.

Some may argue that the flip is true of manufacturer B. However, in the example in 3.38 Manufacturer A would now be producing 100,000 non-ZEV vehicles which could be allowed to produce 10g/km more of CO2 than it otherwise would have, meaning 1,000,000 g/km more CO2 would be in the atmosphere. For Manufacturer B in this example, it would have more stringent targets so would have to produce 20 g/km less CO2 than previous, so 1,000,000 less g/km of CO2. Overall, in this example there is no material benefit to the pooling system as there is no less CO2 in the atmosphere than if both manufacturers had kept to their initial targets. More importantly, there are 100,000 vehicles across the country which now contribute to worse air quality than they otherwise could have, worsening the UK's overall air quality potentially over a wider area than the 50,000 from Manufacturer B would be able to cover.

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

The proposed method for setting targets for new manufacturers breaks away from what the consultation used in section 3.11 to set the 2021 baseline. The 2021 baseline was in part set as manufacturers would be unlikely to have the data for 2022 or 2023, yet new manufacturers are allowed to base their targets off data from the year before they enter the UK market. This is inconsistent and leads to questions to the accuracy and reliability of the data used to determine new manufacturers CO2 targets. We would welcome clarity on this point.

**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?**

Overall, we understand the Government's ambition and are supportive of encouraging a higher proportion of ZEV's sold each year than are targeted. We strongly believe that the uptake of EVs will be steeper than the targets laid out in the consultation. However, ultimately the vehicles on the road producing excess CO2 emissions (greater than each manufacturers targeted g/km) will still be around for up to 20 years and will negatively impact the environment during this time period. This consultation does not adequately reflect that reality and we would welcome the opportunity to discuss alternative ways to ensure excess CO2 is properly considered in legislation. One such example is by rapidly moving to E20 petrol supplies where feasible.

**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?**

**The REA see this proposed mechanism for 2024-2026 as damaging to the ZEV sales targets**. Already manufacturers would only have to do 25%, 50% and 75% of the established targets through borrowing in these years, and to add further ways to reduce the levels of mandated compliance creates possible loopholes. Indeed, this will make it almost impossible for CPOs to accurately forecast demand for chargepoints and make their own sales targets significantly harder to forecast, leading to significant industry uncertainty. It would be our preference that this proposed mechanism is removed from the final legislation as it doesn't appear to actually assist in ZEV rollout. If the Government wants a successful chargepoint rollout, more stringent ZEV sales targets will be needed to make this a reality.

Overall, in 2024 if a manufacturer maximises its borrowing and maximises credit transfer from the non-ZEV CO2 standard, they could produce zero ZEV vehicles in 2024 but be in compliance with the ZEV Mandate, and by 2026 will only have to reach 50% of the ZEV sales targets. This will mean manufacturers are unprepared for the more stringent 2027-2030 targets by being that much further away from the targets than they otherwise would be. We believe this will lead to backtracking by motor manufacturers in this time period and lead to the potential failure of this legislation. This is disappointing as overall it is an impressive, ambitious piece of legislation that DfT have clearly taken a lot of time to consider but is inadvertently let down by the number of ways motor manufacturers can reduce their levels of compliance, leading to uncertainty from a CPO side and from a carbon budgeting angle.

Furthermore, this mechanism creates a scenario where manufacturers are awarded for producing plug in hybrid vehicles which would in this scenario reduce the average CO2 emissions of a manufacturer far more than would be consistent with a PHEVs impact on the environment. Many organisations across the EV industry have expressed this concern to OZEV since the consultation was published. The EU has introduced a utility factor for PHEV's which reflects the total environmental impact of a PHEV, counting their CO2 emissions more strictly than the UK. This will measure CO2 based on how PHEVs are driven in the real world which Transport and Environment[3] have highlighted means emissions are likely three times higher than the UK would currently estimate. Therefore, this mechanism will inadvertently make the sale of PHEVs in the UK more valuable and may reduce the number of ZEV's sold in the UK if manufacturers see more value in PHEVs over the next 7 years.

Moreover, it is concerning that the Government have to date not published their definition of significant zero emissions capability, which has been promised for several months. It is therefore hard to provide the right level of insight as to the impact of PHEVs on CO2 emissions in 2031-35. We urge the Government to publish this as soon as possible.

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[3] https://www.transportenvironment.org/wp-content/uploads/2022/06/TE-Anlaysis_-Update-of-PHEV-utility-factors-1.pdf

Therefore, we recommend that if the Government choose not to remove this mechanism for the reasons suggested above that this mechanism is tightened to only 10% to minimise the incentive to sell PHEVs. This would ensure manufacturers must produce some ZEVs in 2024, and more in 2025 and 2026 reducing the significant uncertainty that this mechanism creates currently.

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

The proposed payment system is a fair representation of the environmental harm failure to comply with the non-ZEV CO2 regulations causes. However, we would anticipate that in the first few years there will be several appeals and so we would urge Government to ensure that there are enough resources for first tier tribunals to fulfil their role in a quick and efficient way. The adequate resourcing of compliance teams is essential, as we have seen elsewhere in the Net Zero transition.

**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?**

The REA understands the complexity and time it takes to gather this data and find agreement and therefore currently agree with the proposals.

**24. Do you support or oppose the proposal to keep the regulation under review?**

The REA would only support this if it is made clear that a review can only strengthen targets. We believe outside of a review process the Government's ability to act on its own discretion due to global circumstances outside of manufacturers control is clearly necessary, but a full review therefore should only be needed if targets can be strengthened which we see as a strong possibility going forward as ZEVs become more normalised in society. Therefore, we suggest if the Government are considering a review mechanism to be introduced, then it should say sales targets cannot be reduced, only strengthened, other than in times of force majeure which may warrant a temporary reduction in the targets for that year.

**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?**

Overall, we believe the impact on these communities should be minimal with the right support in place. For example, the LEVI fund will enable local authorities to access significantly more funding for EV infrastructure over the next few years and to have the expertise in place to ensure the long-term ZEV readiness of their area. We would urge Government to consider network reinforcement and local renewable energy from solar and onshore wind by reducing regulatory barriers to installation of these technologies as their key priority for rural and Island communities, particularly with the

Government's additional targets for heat pumps which will see a significant rise in demand for electricity.

In addition, the higher cost (at present) of EVs can be a barrier so it is critical that all support possible can be given to vulnerable households to switch to an EV, for example:

- Extending scrappage support schemes to rural areas (as used in Greater London for example) and more urban areas.
- Providing as much support as possible towards the upfront cost of purchasing ZEV vehicles - to consumers and also businesses.
- Provision of interest-free grants or loans could be an option here – Scotland already provides such support for solar panel installation for example.
- The leasing and finance industry would like to see a range of measures to support affordable finance for EV purchases (and other green technologies) and we back these:
    - Full expensing for purchases of EVs and green technologies by business;
    - Expedited reform of the Consumer Credit Act to allow greater bundling of green products (eg a car with charger too);
    - A green finance wholesale guarantee whereby Government adopt some of the risks of underwriting such asset purchases for a transitionary period (the Treasury acknowledged this was necessary at the recent Spring Statement);

As a principle, all EVs should be powered using renewable energy and therefore a wholesale expansion of renewable electricity must go hand in hand with EV uptake – we also have a range of policy recommendations on this side, such as more frequent CfD auctions.

**REA, May 2023**