SMMT RESPONSE TO THE GOVERNMENT GREEN PAPER ON A NEW ROAD VEHICLE CO_2 EMISSIONS REGULATORY FRAMEWORK FOR THE UNITED KINGDOM

SEPTEMBER 2021

Introduction

1. The Society of Motor Manufacturers and Traders (SMMT) is one of the largest and most influential trade associations in the UK. It supports the interests of the UK automotive industry at home and abroad, promoting the industry to government, stakeholders and the media. The automotive industry is a vital part of the UK economy accounting for £79 billion turnover, £15.3 billion value added and invests more than £3 billion each year in automotive R&D. With some 180,000 people employed directly in manufacturing and 864,000 across the wider automotive industry, it accounts for 13% of all UK manufactured goods exports with over 150 countries importing UK produced vehicles, generating more than £100 billion of trade. More than 30 manufacturers build more than 70 models of vehicle in the UK supported by over 2,500 component providers and some of the world's most skilled engineers.

2. SMMT, and its members, fully support the transition to zero emission[1] vehicles and welcomes the recent publication of the Transport Decarbonisation Plan and the 2030/2035 Delivery Plan together with this green paper and the consultation on the dates for an end of sale of non-zero emission Heavy Goods Vehicles. We remain keen, and committed, to working closely with government and other stakeholders to achieve these extremely challenging but necessary ambitions.

3. The automotive industry recognises and embraces the key role it must play in enabling the UK to meet its 2050 net zero target, as set out in the Climate Change Committee's Sixth Carbon Budget. The European industry has already invested billions both into the development of new technologies and products but also in changes to existing manufacturing sites and investment in new facilities. As a result of this, there is a rapidly expanding range of electrified models - over 130 currently - already available on the market, together with strong commitments for only electrified or other zero emission vehicles in the European market, including UK. Around 300 new models are expected by 2025.

4. SMMT fully understands the benefits of good regulation in providing both a level playing field in which to meet desired outcomes as well as certainty for the businesses involved in achieving those targets. Government's consultation on "Reforming the Framework for Better Regulations" reflects that proportionality "where markets achieve the best outcomes" is one of the principles of better regulation and the regulatory approach discussed in this consultation should be proportionate to the challenge ahead, fully recognising the rapid progress already being made by the automotive industry.

5. However, the regulatory framework under consideration in this green paper cannot deliver the UK's ambition in isolation. The key ongoing barriers cited by consumers to the uptake of plugin vehicles for example, also need to be addressed with a similar approach. Infrastructure provision is front and foremost of these. The "chicken and egg" nature of the situation is well understood and government's desire to provide certainty to infrastructure providers to encourage their investment recognises this. Both the automotive industry and the infrastructure providers must deliver together to achieve success. It seems unequitable to have a fixed regulatory target on one half of this equation but not the other. The current proposals would suggest that only the automotive sector will be held accountable for any failure to meet the 2030 and 2035 targets.

6. Above all, and particularly given the timeframes involved, the regulation needs to allow flexibility in how the targets can be met so as not to divert vehicle manufacturers from their existing,

already ambitious zero emission product plans, ensuring that the transition can be made in a way that supports both industrial objectives and consumer preferences. Any such diversion would increase costs

[1] Zero Emission Vehicle is understood to mean no harmful emissions from the vehicle tailpipe

and potentially slow new vehicle registrations and the associated fleet renewal so essential to the UK's achievement of carbon budgets.

7. The Climate Change Committee (CCC) recognises the need to overcome numerous supplyside and demand-side challenges associated with a global scale-up in zero emission vehicle sales, including: scaling up global battery production; requiring new sources of raw materials; widespread investment in charging infrastructure and updating grid networks where needed; as well as producing an attractive consumer offer that delivers on price and range across different market segments. The achievement of these ambitions remains completely dependent upon all involved playing their part, be that the vehicle industry developing and supplying suitable technologies or the energy and infrastructure providers committing to deliver suitable, sustainable power to support the roll out of those vehicles as well as, and most importantly, the consumer being reassured that the new technologies will provide them with all, ideally perhaps more, of the practicality and desirability of the old. This would naturally happen during normal market development, but on this occasion the intended speed of that development is unprecedented and therefore needs to be accelerated, at least in the short to medium term. This can only be done as an entire ecosystem, not just placing the responsibility and accountability on a single part of it, that being the automotive industry.

8. The consumer is absolutely at the heart of this change. Other sectors have demonstrated that technology can evolve at pace and the consumer will willingly follow. It should be noted however, that those examples are usually providing a new or substantially different service, bringing something new to the consumer. In the case of cars and vans, the internal combustion engine (ICE) has provided everything the consumer has needed for well over 100 years, so they need to be satisfied that these new technologies will not reduce the level of service or convenience they expect. In this regard, the CCC has highlighted a lack of an overarching strategy and targets for sufficient charging infrastructure, as well as restricted network capacity and cost of upgrades, as key barriers to a 2030 transition.

9. We have seen a significant increase in the uptake of zero and low emission vehicles in recent months, with one in seven cars so far in 2021 being plug-in vehicle and battery electric vehicle volumes having more than doubled to over 8% market share. While this is very encouraging, recent market performance has been severely affected by the pandemic and ongoing supply issues across all types of vehicles. The increase in uptake for the car and van market has been largely driven by the fleet sector, with private car buyers still choosing predominantly non-plugin vehicles. For the private buyer, many of these will have been purchased, possibly as a second car, by consumers with off-street parking, who have easy access and support to charge their vehicles at home. Those who are not in the same position will need more reassurance that there is sufficient infrastructure to meet their needs without unacceptable inconvenience. This will only be achieved with a network of numerous, visible chargepoints in strategic locations to provide that reassurance. SMMT believes that it would have been beneficial for the National Infrastructure Strategy, also announced in government's Ten Point Plan to have been published alongside the Transport Decarbonisation Plan and consultations on CO_2 regulations and end-of-sale of non-zero emission HGVs to emphasise the holistic approach that is required to meet net zero targets.

Basic principles for a regulatory framework for CO_2 regulations

10. The automotive industry is already investing billions in this transition and is advancing along the route to zero emission vehicles at pace. The optimal regulatory framework required to maintain or even accelerate that progress will vary according to different product cycle strategies and plans – one size will not perfectly fit all. For this reason, SMMT's members do not have a single, common view of which of the options for the regulatory framework will best deliver nor how to define a metric for Significant Zero Emission Capability. However, there are certain fundamental considerations on which there is a united view.

11. SMMT fully understands the need for regulation to achieve the target dates for end-of-sale of all non-zero emission vehicles. Given the extremely challenging timescales, either confirmed or under discussion, such regulation must be appropriate, proportionate and simple and above all, should allow flexibility for the consumer and industry to transition in the most suitable way for them, avoiding market

distortions and any slowing of fleet renewal which would be ultimately detrimental to the environment. Such an approach would allow the consumer to continue to choose the lowest emitting, affordable vehicle suitable for their individual requirements.

12. The UK's consultation on this subject comes at a time when the EU and other regions of the world are considering similar transitions to zero emissions. The EU has recently published its "Fit for 55" package, also looking at phase out dates and appropriate regulatory targets. SMMT accepts that the UK has its own climate policy ambitions outside of the EU and has sovereign powers to set its own targets. However, the UK is considered as part of the European market by many manufacturers, and this should be taken into consideration when developing the new frameworks to achieve maximum regulatory consistency wherever possible. Such an approach will help maintain the UK competitiveness both as a supplier of, and a market for, new zero emission vehicles.

13. As indicated previously, the automotive industry cannot deliver the transition to zero emission vehicles in isolation. The industry is committed to providing an exceptional consumer offering of zero emission vehicles within a hugely ambitious timeframe. However, without adequate investment in infrastructure and ongoing incentives to encourage consumers to buy them, the new vehicle market will simply decrease. This will slow down transition to zero carbon, rather than accelerate it, as consumers choose to hold on to their trusted and familiar ICE and nonzero emission vehicles for longer. This would be detrimental to the environment and undermine further industry investment in the development of more efficient zero emission technologies. SMMT believes that for vehicle CO_2 regulations to truly deliver the ambition needed, such regulations need to have conditionality included with targets also being placed on the other key stakeholders in the delivery of those ambitions.

14. Any regulation on the supply needs to be fully supplemented by measures to support the demand for zero emission vehicles in the short term. SMMT propose to extend the Plug-in Car Grant beyond March 2023 and introduce a VAT reduction or other equivalent incentives for zero emission vehicles for all consumers until 2026, in addition to retaining the current favourable VED regime.

15. This regulatory framework should not result in the early removal of certain technologies from the market, reducing consumer access to low emission vehicles in the short to medium term. Policy levers should be utilised to encourage consumers to purchase zero emission technologies as soon as is feasible for their requirements, but the regulatory mechanism should allow a smooth transition for both consumers and the industry.

16. The phase out dates apply equally to cars and vans, but there are some differences that do need to be considered for certain applications of light commercial vehicles during the transition to zero emission solutions. They are predominantly business tools which are required to meet specific operational demands, leading to highly varied use cases and operating environments with higher energy demands than passenger cars. Due to weight, size and the number of specific usage requirements, some technological solutions available for passenger cars are not directly applicable to vans. Typically, lower production volumes do not allow for the same economies of scale, resulting in longer product lifecycles. While zero emission models are already available in the market with increasing demand for such products from fleet operators and urban consumers, there will be other applications and usages which may require either additional time, or more focussed enablers to meet the phase-out dates.

17. SMMT welcomes the green paper consultation on the future road vehicle CO_2 emissions framework and the associated discussion on significant zero emission capability for hybrids. The Climate Change Committee acknowledged that any decision on technologies and carbon reduction must take account of the environmental, industrial and societal impacts of these measures. The Prime Minister's Ten Point Plan reflected that balance and announced that 'all new cars and vans that emit from the tailpipe 'will be required to have a significant zero emissions capability by 2030', which would include some plug-in and full hybrids'.

18. Members have developed a variety of alternative strategies to reach the common goal of being fully zero emissions by 2035. These strategies will vary from manufacturer to manufacturer with different emphasis afforded the differing technologies be they battery electric, plug in hybrid, full hybrid and hydrogen to name but a few. Each will have a fully considered and commercially viable strategy and will make their own separate submissions to government in support of their respective approaches.

19. The responses in this submission try to address the different considerations that industry believes will need to be taken into account in the decision-making process, including on questions about where the industry position is divided or critical detail is missing. Where this is the case, the SMMT looks forward to maintaining discussion on these topics as details become more evident.

Significant Zero Emission Capability (SZEC)

Q1 - What metric, or combination of metrics should be used to set eligibility for cars and vans between 2030 and 2035?

20. SMMT, in its response to the consultation on the end-of-sale of petrol and diesel vehicles, identified the benefits of allowing hybrid technologies (both plug-in and non-externally chargeable) to continue to be sold for a slightly longer period of time. It will take time for the Government's £500 million Rapid Charging Fund to deliver a national network of rapid and ultra-rapid charging hubs so that motorists are never more than 25 miles away from being able to charge their plug-in vehicles[2]. The continued sale of hybrid technologies allows for low emission vehicles to still be available to those consumers who may not have adequate charging infrastructure in place by 2030, or where their particular usage patterns require more advanced, and therefore expensive, battery technology than is currently available in the mass market. All consumers should have a right to choose the right type of vehicle and technology, and at the right price, for their journey needs. Until the uptake barriers of product affordability, range anxiety and infrastructure adequacy are genuinely overcome, other technologies such as PlugIn Hybrids (PHEVs) and Full Hybrids (HEVs) deliver a significant benefit to millions of motorists and overall, to the environment. With the right regulatory approach, these technologies can be used to accelerate the transition to zero emission vehicles, rather than hold it back. While the CCC has raised concerns about real-world emissions of today's PHEVs, it has also acknowledged that PHEVs have the potential to reduce emissions if they drive mainly on electricity. A mix of new technology, regulation and better infrastructure – alongside the increasing cost of fuel and other carbon disincentives – could drastically change the way PHEVs are used in real world settings.

21. The CCC has advised government that the least cost pathway to a net zero road transport sector by 2050 – i.e. no residual non-zero vehicles on the road at all after this date – is to end the sale of non-ZEV vehicles up to 15-20 years before this date, allowing time for a natural turnover in vehicle parc without further, costly incentives. However, government must balance this against the competing costs of artificially accelerating the natural, consumer-led switch to zero emission vehicles in advance of 2030. A 2030 market phase-out of conventional petrol and diesel vehicles represents a huge challenge to the industry considering typical product and investment cycles with potential impacts on the viability of manufacturers, suppliers and

    retailers, and the knock-on effects on jobs. Manufacturers develop products to meet consumer requirements and desire. This has already led to a greater number of electric models rapidly coming to market. However, the required acceleration of a natural market evolution must be done with care. New technology and product developments can only be made if funds are available to invest. The 8 or 9 years between today and 2030 represents between 1 and 2 model cycles depending upon the type of vehicle manufacturer and whether considering a passenger car or a light commercial vehicle. The developments between now and 2030 are already planned and underway in the majority of cases. While the industry fully accepts the imperative for the UK to efficiently transition to net zero transport emissions by 2050, the requirement for manufacturers to deviate from their current investment plans in the near term will be inefficient, costly and potentially counter-productive.

[2] Department for Business, Energy and Industrial Strategy, Department for Transport, and Office for Low Emission Vehicles (2020), Policy paper: Government vision for the rapid chargepoint network in England, available at https://www.gov.uk/government/publications/government-vision-for-the-rapid-chargepoint-network-in-england/governmentvision-for-the-rapid-chargepoint-network-in-england.

22. The average vehicle journey in the UK is 8.4 miles[3]. Plug-in hybrids (PHEV) allow for zero emission driving most of the time, but also offer reassurance that where charging infrastructure is not available, the vehicle remains fully operational. These vehicles remain an essential transition to full battery electric vehicles for many consumers, both in terms of practicality, but also, almost more importantly, in terms of the perception required to increase confidence in electric vehicles and address the range anxiety often cited as one of the barriers to uptake of BEVs.

23. Both PHEVs and full, or non-externally chargeable, hybrids (HEVs) allow consumers without access to sufficient charging infrastructure to still choose a low emission vehicle with significant zero emission capability in certain conditions of use. While SMMT fully expects electric vehicle charging and hydrogen refuelling infrastructure to be significantly expanded by 2030, it is likely that there will still be consumers in the UK, particularly in rural and isolated areas, but also in some other locations, without good access to charging or hydrogen refuelling infrastructure. Equally, for those with very specific or arduous usage patterns, it is less certain that they will have access to affordable technologies to satisfy those requirements by 2030. This applies also to certain vehicle types, such as the specialist performance car sector or vehicles which tow caravans or large trailers, for example. Given that these vehicles also typically do very low annual mileage, minimising their environmental contribution, the additional cost of the technology needed to meet the expectations of such vehicles may never be offset by the lower running costs of an electric vehicle.

24. SMMT welcomes the recognition in government's 'Ten Point Plan for a Green Industrial Revolution' of the benefit of continuing to allow both PHEVs and HEVs with significant zero emission capability between 2030 and 2035 to assist in the transition to 100% zero emission vehicles in 2035.

25. While SMMT understands the appeal of a CO_2 g/km component in the definition of "Significant Zero Emission Capability" given that it is a well-known metric and understood to a large extent by the consumer, the volume and emissions performance of these vehicles will still be controlled under the regulatory framework under consideration in the rest of the green paper. Setting an absolute cap on CO_2 g/km for an individual vehicle is therefore unnecessary and gives no additional information in terms of either identifying zero emission capability or the impact on actual overall carbon emissions.

26. The SZEC definition is needed to specify which transitionary technologies can have a role to play in reducing emissions and in supporting consumers and industry in making the switch to zero emission vehicles by 2035. To this end, the metric should be chosen on the basis of industry available data and should be derived from the official WLTP test information, which provides clear comparability between models.

27. A metric of electric range is suitable for PHEVs to identify the best performing models. This data is readily available in the type approval documentation and also exists on the Certificate of Conformity (CoC).

28. As electric range does not exist for HEVs due to the difference in their operation, a metric of electric drive time over the low and medium WLTP cycles would be more appropriate. While this is not declared as a single value in the type approval documentation, it is possible to determine from the WLTP cycle results and hence would not require additional testing. A suitable threshold for this metric would ensure that such vehicles will not have a detrimental impact on urban air quality.

Q2 – For your chosen metric, what threshold should new cars and vans be required to meet from 2030?

29. As discussed in the answer to the previous question, there are different metrics that can be applied to the different hybrid technologies; however, SMMT believes any hybrid vehicle can be considered to have significant zero emission capability if it meets the UNECE definition of a hybrid[4] (and is therefore type approved as such) and it has either an equivalent all electric range (EAER) under WLTP of at least [20 miles] or an electric drive time greater than [50%] of low / medium WLTP phases This is not to suggest

[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906276/national-travelsurvey-2019.pdf
[4] https://unece.org/fileadmin/DAM/trans/main/wp29/wp29resolutions/ECE-TRANS-WP29-1121e.pdf

that these two metrics are directly comparable in terms of performance but provides a simplified administration process in the case where a hybrid meets the EAER requirement.

30. This definition would cover a significant proportion of daily journeys, increasing the number of zero emission miles being driven during the transition period up to 2035.

31. While more stringent metrics could be set, this could distract investment from zero emission vehicles to the further development of existing technologies to meet such metrics - which cannot be the desired outcome for the long term. With the appropriate enablers in place for the adoption of zero emission vehicles, consumers will be encouraged to make the switch anyway as there will be a greater choice of models with the new technologies than with the older ones over the next 5 to 10 years.

Q3 - What other requirements could be introduced, if any, to maximise zero emission capability?

32. There have been a variety of different reports, including commentary from CCC, that some PHEVs are infrequently charged and hence do not deliver the benefits that can be seen during the type approval tests. Such reports are sometimes lacking in anything other than anecdotal evidence, but SMMT takes the concern seriously. If the fiscal incentives to encourage e-driving are in place and a proliferation of accessible, affordable charging infrastructure is available, then there is no reason to suppose that consumers would not charge their vehicles given that it is the most cost-effective way of running them. For private buyers, particularly, it would be counterintuitive to pay a premium for a technology that was then not used to deliver the economic and environmental benefits offered by that technology. One of the key foundations to the success of the end-of-sale date in 2030 is sufficient infrastructure and hence the convenience and likely running costs that will be seen by that date will encourage consumers to optimise the zero-emission utilisation of a PHEV, only using the ICE in the limited occasions where infrastructure is unavailable or insufficient.

33. Other policy levers also can be considered where urban air quality is a particular concern.

Q4 – What would the impact be on different sectors of industry and society in setting an SZEC requirement, using evidence where possible?

34. Members have developed a variety of alternative strategies to reach the common goal of being fully zero emissions by 2035. These strategies will vary from manufacturer to manufacturer with different emphasis afforded the differing technologies be they battery electric, plug in hybrid, full hybrid and hydrogen to name but a few. Each will have a fully considered and commercially viable strategy and will make their own separate submissions to government in support of their respective approaches.

35. However, the continued sale of a range of hybrid technologies would allow all consumers the chance to select the lowest emitting vehicle which is both affordable and suitable for their specific needs, regardless of location or usage pattern. This will increase fleet renewal, lowering the overall emissions from the vehicle parc as quickly as possible. This aspect is essential to meeting the UK's carbon budgets.

36. The short continuation of these technologies also gives small volume and specialist manufacturers time to make the transition to zero emission vehicles in an economically viable way. Those manufacturers are often reliant on technology from larger manufacturers, and even for those larger manufacturers, it avoids the need to fundamentally deviate from existing product plans in a very short period of time, significantly reducing the opportunity for further investments.

37. The SZEC requirement should not be set at a level which would require significant future investment in hybrid technology between now and then. Such investment should be targeted towards improving zero emissions technologies in terms of cost, sustainability, efficiency and overall performance. While recognising this, the SZEC threshold, as a part of the overall regulatory framework discussed in the rest

of the green paper, should give reassurance that there is a minimal impact on both carbon and pollutant emissions over the 5 year period.

Possible Future Frameworks

Q5 - Do you have any comments regarding Option 1, to replicate the current regulatory framework, albeit with strengthened targets, to meet our wider carbon reduction targets and phase out dates?

38. Any framework should be simple and appropriate, embodying the principles of better regulation and should support a sustainable, strong market with no market distortion as a direct result of the regulation.

39. The industry is very familiar with CO_2 fleet regulations although appreciates that the current level of stringency will not be sufficient to meet the UK ambitions. Replication of the current framework maintains consistency with the existing UK and EU frameworks which is important for a European, or even global industry. Policymakers should be mindful that a very different framework from that used within similar markets or regions could have the unintended consequence of actually restricting supply to the UK market in the short term – a market already differentiated by being right-hand drive in a predominantly left-hand drive region.

40. With the right thresholds in the fleet regulations, a ZEV mandate is effectively implemented without the need for a separate policy. There is limited potential to substantially improve CO_2 emissions from ICE vehicles now – both in terms of physics, but also with the increasing ambitions of various regions of the world to phase out ICE in the light duty sector making the business case less viable. Even the current regulation cannot be achieved without a certain amount of ZEV and ULEV registrations, so any appropriate increase in stringency is likely to generate a resulting increase in the number of those registrations.

Q6 - Do you have any comments regarding Option 2, to introduce a ZEV Mandate or sales target alongside a CO_2 regulation?

41. Any framework should be simple and appropriate, embodying the principles of better regulation and should support strong market sustainability with no market distortion as a direct result of the regulation.

42. Policymakers should be mindful that a very different framework from that used within similar markets or regions could have the unintended consequence of actually restricting supply to the

UK market in the short term – a market already differentiated by being right-hand drive in a predominantly left-hand drive region.

43. ZEV mandates have been used to varying degrees of success in different regions of the world. However, they can be a good mechanism for a nascent market where there would be no natural desire for the supply or purchase of such vehicles.

44. It should also be noted that ZEV mandates in other parts of the world are heavily supported by incentives and similar mandates on infrastructure provision. This alleviates any potential for the implementation of a ZEV mandate to actually reduce the size of the new vehicle market. Any implementation of a ZEV mandate in the UK would also need to be include incentives and targets on infrastructure provision.

45. SMMT understands the desire to have a ZEV mandate, which can be perceived as a simple way to show the uptake trajectory of ZEVs. With the correct demand-side enablers in place, this can be true, but without them, a ZEV mandate does not give certainty on the number of vehicles coming to market. This would not therefore deliver the government's stated objective of providing desired certainty to infrastructure providers to encourage investment.

46. If combined with a CO_2 regulation which already implicitly imposes a ZEV mandate, a separate mandate would either not achieve additional uptake or would, in effect, double-regulate the same fleet of vehicles.

This level of restriction would not be proportionate for such a short period of time and would not provide the flexibility for the industry or the consumer to make the transition to ZEVs in the most appropriate way.

Q7 - Do you have any views on the government's initial preference for the regulatory approach set out in Option 2?

47. SMMT notes that government's preference to have a ZEV mandate and CO_2regulations to provide certainty on the uptake of ZEVs while ensuring that the non-ZEV fleet remains controlled by CO_2 fleet regulations. While many manufacturers have a preference for CO_2 fleet regulations, a significant and important minority would prefer the ZEV mandate approach. Either approach, if appropriately constructed, could deliver the desired outcomes, but it is clear that much more detail needs to be understood on how these could work with a general agreement that there can only be one primary measure, unless the two parts truly complement each other and avoid double regulation of the same fleet of vehicles.

48. SMMT understands that one of the purposes of the green paper is to provide discussion around the structure of the regulatory framework, but due to the complexity of the interactions of the different parts of the proposals under consideration, both the questions and the responses can only be given at a principled, high level in this format. We would therefore seek further engagement with the Department for Transport to discuss in much greater detail how to develop a regulatory framework which both guarantees delivery of the UK's ambitions but allows the flexibility to the industry to support both the consumer and UK manufacturing in their transition to zero emission vehicles.

49. The regulatory framework for automotive must also be complemented with equivalent regulation on the infrastructure providers. Whichever framework is chosen, it cannot be guaranteed to deliver the government ambitions unless the same certainty is applied to the provision of infrastructure.

Q8 - Are there alternative approaches that could deliver on the government's carbon budget and 2030/2035 commitments?

50. Industry is used to working with CO_2 fleet regulations and given the previously discussed timeframes involved, continuing the same type of regulatory framework would seem appropriate. The previous and existing regulations have achieved significant reductions in CO_2 emissions and there is no reason to suppose that would not be the same with future regulations.

51. Many manufacturers have made commitments recently to zero emission vehicles by certain dates and the vast majority of those are within the desired timeframe. As such, it is essential that the main focus of activity is collectively on the enablers to ensure that the overall parc switches to these new technologies as soon as possible in order to deliver on the carbon budget and 2030/2035 commitments.

Q9 - Do you have any views on how either, or both, of the options could be implemented?

52. Either option should be supported by a full regulatory impact assessment to fully understand the implications on both the industry and the consumer as well as on both the new and used vehicle markets.

53. Either option would also need to be accompanied by appropriate enabling measures, both regulatory and non-regulatory in order to ensure that it fully delivers government's ambitions and targets.

54. Either option would also need to reflect conditionality on other parts of the EV and FCEV ecosystems meeting the required levels to support the targets on the automotive industry. Vehicle manufacturers must not risk penalties for failing to meet their objectives if the market failure is due to lack of infrastructure for example. It should also be noted that without that conditionality, vehicle manufacturer targets may be met but over a substantially reduced new vehicle fleet, thereby slowing fleet renewal with the resulting detriment both to environment and economy, as well as the industry's ability to invest in ever cleaner and safer vehicles

Q10 - Do you have any further comments or evidence which could inform the development of the new framework?

55. SMMT believes that the new framework should remain simple to implement, embodying better regulation principles. Consideration should be given to the industry commitments already publicly made for decarbonisation, assessing them against the government objectives in order to ascertain the appropriate regulation required to meet any shortfall in the current plans. Both the industry and the market are already making rapid progress towards zero emission vehicles and any regulation should simply reinforce that trajectory, accelerating it where there is a demonstrable need rather than risking market disruption by implementing regulatory levers only for optical reasons.

56. While the consultation mentions that implementing the new regulatory framework will principally be a devolved issue, SMMT would like to make clear that any situation which results in different targets or mechanisms being operational in the different nations of the UK will only result in market distortions between those nations. Climate change is not a local issue and there would be no benefit to having differing approaches across the devolved administrations. SMMT appreciates that it is not the UK government's intention for this to arise, but if there is a possibility that it could occur, appropriate measures should be taken to ensure that any risk is mitigated as far as possible. Any role should be maintained at the current levels seen for UKwide climate change policies where the devolved administrations have primarily had a "demand-side" role with responsibility for measures to support changes in public behaviour rather than setting prescriptive requirements

Additional Issues for Consideration

Stringency of CO_2 Target

Q11 - If deploying a combined ZEV Mandate and CO_2 regulatory framework, how should the CO_2 element be set?

57. An exact position on how the CO_2 element of a combined ZEV mandate and CO_2 framework can be deployed depends on the details of the ZEV mandate, but either of the two suggested approaches could work if constructed appropriately. The aim of the chosen approach is to reduce carbon emissions from the fleet while minimising the need for manufacturers to invest in further, time-limited improvements to ICE technology, allowing that investment to be targeted at improved efficiency ZEV technologies.

58. SMMT seeks further engagement on how to best implement the CO_2 element should Option 2 be the chosen framework.

Q12 - Should the focus be on delivering the largest possible CO_2 savings, or the quickest possible switch to zero emission mobility?

59. SMMT believe that delivering the largest possible CO_2 savings is the priority. This will help government achieve the carbon budgets needed to tackle climate change. While the switch to zero emission mobility is one key element to this, it will only deliver on carbon budgets if all of the energy used in those zero emission vehicles is derived from "green" sources. In addition, as discussed in responses to other questions in this consultation, fleet renewal is essential to deliver absolute CO_2 savings from the car and van parc. A 100% ZEV mandate may be met, but if the new vehicle market is half of its normal size as a result, significant, absolute reductions will not be achieved. Aside from the environmental impact, a reduced new vehicle market also has a major impact on the UK – a drop of 25%, for example, results in a loss of £3 billion to HM Treasury. This is why it is so essential that the regulatory framework supports both the development and manufacture of vehicles in the UK but maintains a healthy new vehicle market. This, in turn, creates a functional secondhand vehicle market, allowing the majority of consumers to purchase a much lower emitting vehicle as their next vehicle purchase and delivering the necessary reductions in overall emissions.

60. Zero emission mobility will also deliver the necessary improvements to air quality. The policy levers used to address local air quality issues will provide an additional incentive to some consumers to switch to zero emission vehicles or alternative transport modes. This may well result in additional carbon savings but the two issues, one global and one much more local, should not be conflated when evaluating the impacts of different policy measures.

Q13 - How do we ensure that the target allows for sufficient supply of low and zero emission vehicles; supports investment in the UK; and delivers our carbon reduction commitments?

61. Certainty on future infrastructure roll out and incentives to accelerate the transition remain key to developing the zero emission market in the UK. Lack of certainty on these enablers will also weaken investment potential in manufacturing facilities.

62. SMMT believes that the regulatory target needs to provide clarity for the industry and the consumer to instil confidence in the new technologies and the UK market.

63. As discussed previously, to achieve this, the regulation needs to be simple and allow as much flexibility as possible for the industry and consumer to make the transition. The timeframe over which this transition needs to occur is extremely short in terms of whole market evolution and as such, we see few risks that such flexibility will result in either a sudden increase in CO_2 emissions or a stagnation in the uptake of zero emission vehicles – both of which would obviously be detrimental to the achievement of the carbon budgets.

64. This clarity and flexibility will also contribute to ensuring that the UK is viewed as a centre for investment in both development and manufacture of zero emission vehicles in the future.

65. The supply chain also needs to be given full consideration in this transition. Even with increased domestic production, the industry is unlikely to be able to increase UK content of electrified vehicles to the scale required by government ambitions. Reducing or eliminating the tariffs on low emission vehicles would increase consumer choice and affordability.

Derogations and Exemptions

Q14 - Should the new regulatory framework include exemptions or modified targets for certain specialist vehicles and/or niche and small volume manufacturers?

66. SMMT recently produced a report[5] highlighting the size, coverage and importance of the specialist and small volume manufacturers to the UK economy.

67. Special Purpose Vehicles (SPVs) as defined in the EU Type Approval Framework Regulation (EU) 2018/858[6] and vehicles manufactured in small volumes typically make a tiny contribution to overall mileage driven in the UK and so have a minimal impact on the environment.

68. In addition, they deliver very specific service or performance characteristics for their customers. SPVs include wheelchair accessible vehicles, ambulances, armoured vehicles and hearses. Other small volume manufacturers build high performance cars, which drive innovation across the sector. The UK is home to a thriving industry of these types of manufacturers.

Special Purpose Vehicles (SPV)

69. SPVs tend to almost always be conversions on a base vehicle supplied by an OEM. As such, the manufacturers of these vehicles are not in control of the powertrain of the vehicle. As the base vehicles become zero emission, the SPVs will also become zero emission. However, SPV manufacturers need time to re-engineer their products on new technology base vehicles and so cannot be expected to meet

[5] https://www.smmt.co.uk/reports/uk-low-volume-and-specialist-vehicle-manufacturers/
[6] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018R0858&from=EN

the same timeframes as the OEMs who provide the vehicles that their product is based on. Given the fundamental services and societal functions that these vehicles provide, it would also be disproportionate to place targets on them, which may then limit the supply of such essential vehicles. These considerations are recognised within the both the current CO_2 fleet regulations[7] and the emissions regulations that determine the CO_2 emissions from the vehicles. It would seem appropriate that such vehicles are excluded both from the phase out dates and continue to be out of scope of the regulatory framework.

Small Volume Manufacturers

70. Many of these manufacturers also tend not to develop or manufacture their own powertrains. They are reliant on larger volume manufacturers. This reliance on others means that they will inherently become zero emission vehicles as the market evolves. Their business models mean that they may simply take a little longer to reach that point and there is negligible environmental benefit to forcing them to change in identical timescales, given that they need time to develop their products on zero emission technologies while still meeting the specific requirements demanded by their customers.

71. In the cases where manufacturers do develop their own powertrains, the specific performance expectations of their customers often lead to very limited packaging availability for hybrid solutions, meaning that they may have a more restricted EV range. SMMT would propose that a different SZEC threshold is set for these vehicles.

72. SVMs inherently have a much small product portfolio than large OEMs over which to average their fleet emissions. This means that emissions from higher performance or utility vehicles cannot be offset with lower emissions from other models.

ZEV mandate

73. SVMs should be exempted from any ZEV mandate, consistent with the approach adopted in territories worldwide where such a mandate has been enforced (i.e. California and China, where independent OEMs selling less than 4,500 and 30,000 vehicles per annum in the country, respectively, are exempt from the mandate).

CO_2 regulations

74. SMMT believes that the current exemptions for SPVs as well as those for small volume manufacturers registering less than 1000 vehicles in the UK per annum should be continued in the new framework.

75. SMMT believes that small volume manufacturers registering more than 1000 vehicles in the UK per annum should still be eligible for derogation.

76. The exact need and justification for derogation / exemption can only be truly assessed once the framework and targets are confirmed but the same principles apply for CO_2 regulations or ZEV mandate. SMMT therefore requests that the subject of derogations and exemptions is left open at this point and looks forward to further engagement on this topic as discussions on the framework and thresholds progress.

Credit Levels

Q15 - Should credits be awarded to vehicles that meet the SZEC definition?

77. SMMT believes that credits should be awarded to vehicles that meet the SZEC definition but that it would be appropriate to have different credits available for different technologies to reflect the different zero emission capabilities.

[7] https://www.legislation.gov.uk/uksi/2019/550/contents/made as amended

Q16 - If so, should this be a fixed number of credits, or should there be a sliding scale that recognises the difference in CO_2 efficiency of various SZEC-compliant vehicles?

78. It would be appropriate to have different credits available for different levels of CO_2 or energy efficiency, but without creating an unnecessarily complicated system.

79. SMMT would be keen to discuss the exact nature of a sliding scale in more detail once the framework is agreed under which such credits might be used.

Credit banking and trading

Q17 - Should this be considered within the new framework?

80. Credit banking and trading should be included in the new framework as it allows an increased flexibility in how individual vehicle manufacturers achieve their targets, while ensuring that the overall new vehicle fleet meets designated targets at specified times. It is the performance of the whole fleet which will have the biggest impact on carbon budgets.

Q18 - If so, over what timeframe should they remain usable and should credits and debits be treated the same or differently?

81. Considering the relatively short timeframe over which the regulations will run, credit banking and trading should be usable throughout the life of the regulations.

82. Credits and debits should be treated the same from the start of the regulations until 2030 when a review should be made of the new vehicle market to assess whether a change in approach is necessary.

Q19 - Within the trading element of the new scheme, should there be limits on the number of certificates/grams of CO_2 that can be bought or sold?

83. There should be no limits on the trading scheme to allow maximum flexibility of the market transition while maintaining the desired performance across the overall new vehicle fleet.

Q20 - Should such a market cover the whole of road transport or should there be some constraints imposed on trading across manufacturing sectors (e.g. cars and Heavy Duty Vehicles)?

84. Where road transport manufacturing sectors have common targets and trajectories; for example, cars and vans, credit trading should be allowed across the different vehicle categories to allow the maximum flexibility for those overall new vehicle fleets to meet those targets.

85. Credit trading across the whole of road transport may not provide the right conditions for the sectors with later non-zero emission vehicle phase out dates to evolve in a sustainable way. However, this can only be ascertained once the regulatory frameworks are understood for each sector. SMMT seek discussion on this topic at that point.

Levels of fines for non-compliance

Q21 - How, and at what level, should fines be set in the new UK regulatory framework and should this vary for different vehicle types?

86. If Option 1 is chosen, SMMT believes that levels of fines should be maintained at the current levels of the existing frameworks. These values were derived as suitable incentivisation to achieve the current targets and there is no evidence to suggest a need to change them.

87. If another option is selected, then the penalty mechanism and levels would need to be reconsidered. It is not appropriate to comment at this stage as there is insufficient detail on which to base those comments but SMMT would seek further engagement with Department for Transport on this topic once the detail of such a framework was developed.

Real-World Emissions

Q22 - Would there be benefits in seeking to ensure any CO_2 targets in the new UK regulatory framework take into account real-world emissions data alongside the labtested WLTP CO_2 emissions figures? If so, how might the two be linked?

88. WLTP, while being a laboratory cycle, has been developed to reduce the gap between real-world emissions and the data derived from type approval tests. It provides reliable, comparative data between different models and representative data for an individual vehicle.

89. Through UNECE WP29 (World Forum for Harmonisation of Vehicle Regulations), the UK contributes to the continual improvement of the WLTP regulations to implement improvements to the test procedure as vehicle technologies develop. This will minimise any gaps between the laboratory and real world data, although accepting that such gaps cannot be eliminated completely.

90. There is now also a requirement for vehicles to be fitted with On Board Fuel Consumption Monitoring Devices, specifically for the purpose of monitoring real-world performance against WLTP data. Information from these devices will be used to evaluate the need for amendments to WLTP. While a methodology for capturing that data has yet to be finalised at a UK level, SMMT and its members look forward to working with Department for Transport to develop a robust method for the capture and analysis of this data.

91. SMMT understands the link between real-world emissions and performance against carbon budgets. However, it would be inappropriate and disproportionate to try to include real-world emissions in fleet average targets due to the highly variable nature of the operation of the vehicles by different consumers and the comparatively short period of time that these new regulations will be in place for. Those variations are much better addressed by continuously monitoring the data to identify any areas of WLTP which do not adequately reflect frequently seen usage patterns.

Extending the Framework to All Road Vehicles

Heavy Duty Vehicles

Q23 - For vehicle sub-categories that are not yet covered by VECTO, could a ZEV Mandate/sales target be extended before VECTO is adapted?

92. SMMT does not believe that a ZEV mandate for vehicle sales is an appropriate mechanism for heavy duty vehicles.

93. For heavy goods vehicles (HGVs) over 7.5 tonnes, VECTO already provides broad coverage across vehicle sub-categories to provide a robust, standardised and scientifically validated CO_2 measurement method. Adaptation of the VECTO test procedure is not considered necessary for HGVs over 7.5 tonnes, as only special purpose vehicles and all-wheel drive variants are outside of scope from ECWVTA (or provisional GB type approval). It should be possible, therefore, to extend the scope of existing UK CO_2 regulations to include HGVs between 7.5 tonnes and 16 tonnes, without the need for ZEV mandates or similar mechanisms. Changes to European legislation will mean that VECTO is extended to medium sized HGVs (from 5 tonnes to 7.5 tonnes) and heavy buses in 2022. As the UK HDV CO_2 regulation continues to rely on VECTO as a test tool, the expansion of its scope to medium size HGVs and heavy buses can benefit the new framework.

94. Different approaches to CO_2 regulation make customers uncertain about buying ZEVs as soon as they are available from vehicle manufacturers and the necessary infrastructure is available. The market for trucks, buses and coaches behaves very differently to cars and vans and is fundamentally steered by cost

of ownership and operating costs. As such, there is already a good incentive for operators to switch to low and zero emission vehicles once the rest of the business case (such as dense network of charging / refuelling infrastructure, incentives for the purchase of ZEVs, relief for consumers in terms of electricity tax when using a BEV) is established. Downtime for refuelling / recharging requirements must be minimised and with suitable vehicle technologies not yet fully commercialised, particularly in the case of Heavy Goods Vehicles and coaches, this needs further development before any such targets could be considered. Even then, such mandates may be better placed on the operators rather than the manufacturers to encourage more rapid fleet renewal.

Q24 - Would there be any unintended consequences of establishing a ZEV Mandate for certain vehicle sub-categories before a CO_2-based regulation?

95. For those sub-categories of HDVs not yet covered by CO_2-based regulations, it would be difficult to assess whether there could be unintended consequences for achievement of carbon budgets. For that very reason, it would seem prudent to continue the widening of the scope of the vehicle categories covered by VECTO to include medium size HGVs and heavy buses, ahead of any target setting for those categories.

Q25 – Do you have any views on imposing a CO_2 regulation on vehicle types that are not yet covered by a CO_2 test procedure, or existing regulation, particularly in light of the planned future phase out consultation for new non-zero emission buses?

96. Until VECTO is expanded to include medium sized HGVs (5 tonnes to 7.5 tonnes) and heavy buses, there will be no method of establishing a baseline from which to measure future CO_2 reductions. SMMT understands the desire to lay such regulations at the same time as for cars and vans, but both the zero emission vehicle market and the quantification of CO_2 emissions from cars and vans are further advanced than for the other categories of vehicles.

97. The current CO_2 regulations for HDVs are still at the monitoring and reporting stage and it would seem appropriate to allow both this phase of the regulations to complete as well as the evaluation of the responses to the current consultation on the phase out of non-zero emission trucks and the future consultations on non-zero emission buses and coaches before assessing the most appropriate way to regulate for the future ambitions.

98. SMMT remains committed to working with government and other stakeholders to ensure that such evaluations can be done effectively and in a timely manner.

L-Category vehicles (Motorbikes, Mopeds, Quad Bikes etc)

Q26 - Should the preferred regulatory approach be extended to all L-category vehicles or should the diversity of the sector (motorbikes, mopeds, motorised tricycles, quadbikes, motorised quadricycles etc) necessitate different approaches?

99. L-category vehicles covers a wide diversity of products and due to their nature can provide a very positive contribution to clean mobility. For the same reasons, they have very different technology solutions, infrastructure requirements, consumer behaviours and use case scenarios associated with them. As such, SMMT believes that the regulatory framework for these vehicles needs to be considered separately from cars and vans.

Contact:
(Redacted – Regulation 13 of the Environmental Information Regulations 2004)