Bird & Bird

A roadmap to electric vehicle regulations in the UK

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Introduction

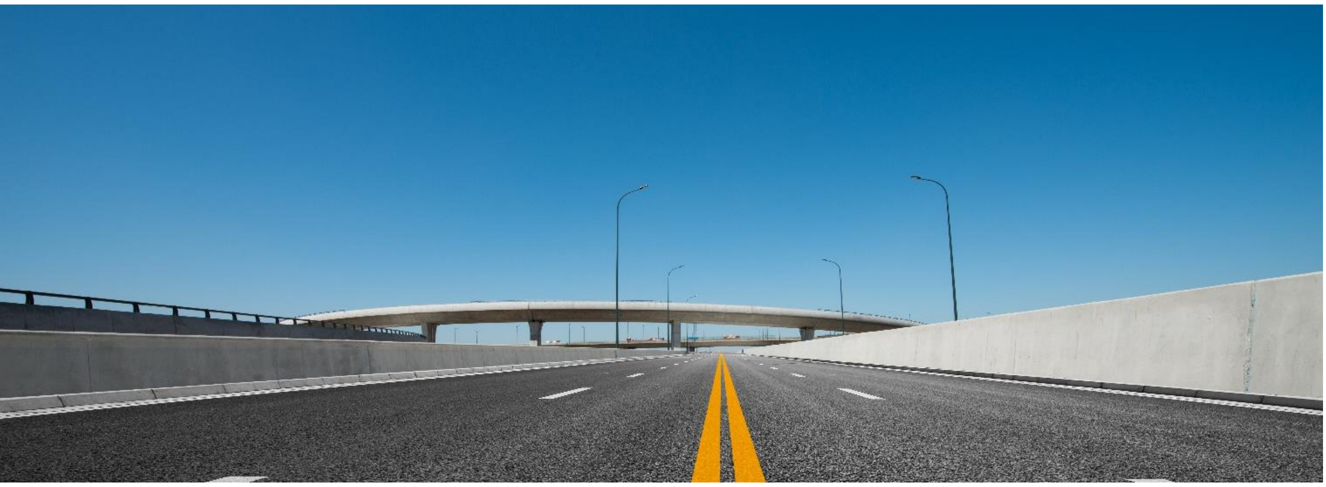
In the wake of the UK's exit from the European Union, the government has launched consultations on the future shape of proposed legislation for the automotive sector which forms an important component of its Net Zero Strategy.

With the deadline looming for the phase out of the sale of new petrol and diesel cars in 2030, the need for clarity is becoming increasingly important to allow manufacturers to plan future strategies and give investors confidence in the direction that the UK automotive sector is heading.

The results of a green paper on a *New Road Vehicle* CO2 *Emissions Regulatory Framework for the UK* ("**CO2 Emissions Green Paper**") were published on 7 April 2022, in which the Department for Transport ("**DfT**") set out new plans to require automotive manufacturers to produce a certain amount of zero-emission vehicles ("**ZEVs**") from 2024. Rather than adopting a CO2 emissions based regulatory framework, the so called "**ZEV mandate**" is designed to ensure that vehicle manufacturers are preparing for the bans commencing in 2030 and to create a sufficiently simple regulatory framework to encourage and regulate EV consumer uptake. The ZEV mandate will run alongside the requirement to reduce average CO2, but will compel car makers to sell EVs and, for lower credits, plug-in hybrids, to help avoid a cliff edge in 2030. Crucially, the annual targets requiring a percentage of manufacturers' new cars and vans sales to be zero emission from 2024 have been deferred pending the conclusions of a *Technical consultation on zero emission vehicle mandate policy design* which was also published on 7 April 2022 ("**ZEV Mandate Consultation**").

Between 2030 and 2035, only the sale of new cars and vans with 'significant zero emission capability' will be permitted in the UK. The government has made clear that only once the ZEV Mandate Consultation has concluded on 10 June 2022 will it be able to confirm which vehicles will fall within this definition and can therefore be sold between 2030 and 2035 to ensure that the UK still remains within its carbon budget and net zero obligations.

We take a further look below at the detail of the CO2 Emissions Green Paper results and scope of the ZEV Mandate Consultation to take stock of where we have got to in the discussions around EV regulations in the UK.



EV roadmap in overview

Date	Regulation
July 2017	Government announced Air Quality Plan which called to ban sales of new petrol and diesel cars and vans by 2040.
July 2018	Government published the Road to Zero Strategy which outlines how the government will support the transition to zero emission road transport and reduce emissions from conventional vehicles during the transition.
June 2019	UK target to bring all greenhouse gas emissions to net zero by 2050 becomes law.
November 2020	Government announces its "Ten Point Plan for a Green Industrial Revolution" and launched consultation on the phase out of petrol and diesel cars.
March 2021	Outcome and response to proposals to end the sale of new petrol, diesel and hybrid cars and vans announced, which concluded that: • the sale of new petrol and diesel cars and vans would be phased out by 2030 • all new cars and vans must be zero emissions at the tailpipe from 2035 • any new cars and vans sold that emit from the tailpipe must have significant zero emission capability (which includes some plug-in and hybrids) between 2030 and 2035 • all new HGVs >26t must be zero emission by 2040
July 2021	UK Government publishes CO2 Emissions Green Paper.
October 2021	Government announces Net Zero Strategy which sets out policies and proposals for decarbonising all sectors of the UK economy to meet the UK's net zero target by 2050.
November 2021	Government announces new building regulations requiring new homes, buildings and those undergoing major renovations to install EV charge points.
April 2022	• Outcome of CO2 Emissions Green Paper published. • DfT publish ZEV Mandate Consultation.
June 2022	ZEV Mandate Consultation to close on 10 June 2022.
January 2024	Target date for legislation to be enacted on 1 January 2024.

Outcome of the CO2 Emissions Green Paper

The DfT launched the CO2 Emissions Green Paper consultation in July 2021, which set out proposals for a carbon dioxide regulatory framework for all new vehicles in the UK.

On 7 April, the outcomes of the consultation (which closed on 22 September 2021) were published, the key points being:

- the UK will adopt a ZEV mandate, rather than a CO2 emissions based framework, requiring a percentage of manufacturers' new car and van sales to be zero emission each year from 2024;
- the government will continue to regulate the carbon dioxide emissions of the non-ZEV portion of the UK fleet to make sure they do not increase;
- a ZEV mandate with a CO2 regulation for non-ZEVs could, over time, be applied to other road vehicles sold in the UK; and
- the government recognised the need to further consult on ZEV mandate target trajectories to determine a definition for "significant zero emission capability".

Key discussion points

Defining significant zero emissions capability

Car makers are concerned that they don't know which vehicles can survive from 2030 to 2035 after the government said only those with "significant zero-emissions capability" ("**SZEC**") could continue. The responses to the consultation threw up interesting stakeholder views on the definition of SZEC. Around a quarter of respondents supported a definition based on a continuous zero emission range which, it was felt, is more easy to understand and would allow for a fair comparison between all vehicle types.

The consultation asked what other requirements could be introduced, if any, to maximise zero emission capability, with a variety of proposals received including suggestions that onboard CO2 data could be aligned with some sort of taxation. This, it was felt, could be used to encourage consumers to buy more fuel-efficient vehicles and encourage manufacturers to bring more SZEC compliant vehicles to market.

Others called for more fiscal measures to encourage consumers to switch to electric/plug-in hybrid vehicles, including tax breaks and penalties for non-compliance.

The definition of SZEC is important as it will directly impact the scope of the regulations and give certainty to manufacturers in terms of understanding what vehicles could be sold in the UK after 2030. The government's recent announcement that it would help fund an increase of public EV chargers to reach a target of 300,000 by 2030 met with a somewhat cool reception, in part because the car industry won't know what the ZEV targets are until the SZEC definition has been settled.

If, for example, the definition of SZEC excludes hybrid electric vehicles, there may be additional investment in the UK across the supply chain and increased R&D, although some are less enthusiastically of the view that such a limited definition is not going to be practical as it will undermine future business investments in the UK and also because plug-in hybrid electric vehicles ("**PHEVs**") are still expensive.

Real-world emissions vs lab-tested WLTP CO2 emissions figures

Since 1 January 2021, all new cars and vans are required to have an on-board fuel consumption monitor that monitors the mileage driven and the fuel/energy consumed by the vehicle. The government noted that it is developing proposals on how to collect this information with industry and confirmed that whilst a ZEV sales target will be the primary driver in the new regulation, a CO2 emissions element will feature to primarily ensure that fleet average CO2 emissions from non-ZEVs do not increase over time. The government also concluded that it may look to adjust CO2 emissions targets using real world CO2 data if the gap between real world and the internationally recognised World harmonised Light-duty Procedure CO2 data grows, but that this would be subject to future consultation and engagement with industry.

CO2 emissions based target vs ZEV sales target

Respondents favouring a ZEV mandate over and above a CO2 emissions only based framework overwhelmingly stated that the mandate would provide the certainty that businesses throughout the supply chain need in order to accelerate the transition to zero emission mobility. Prescribing a fixed percentage of new vehicle sales that would be zero emission at the exhaust would give chargepoint operators the certainty of demand to increase the rollout of chargepoints, assure them on the return on their investments and those managing the UK's energy system could make the investments needed ahead of time to ensure that the electricity grid can handle the demand on energy. Many respondents stated that a ZEV mandate was the only way to guarantee enforcement of the government's 2030 and 2035 commitments. The majority felt that under a CO2 emissions framework, manufacturers have multiple routes to ensure compliance with targets, with some meeting their targets through the increased sale of ZEVs, but the option remaining for targets to be met through improvements to internal combustion engines, or through hybridisation which result in a reduced overall carbon saving.

It was acknowledged that until the government can quantify the overall CO2 savings that the new regulatory framework will deliver it, which? will not be able to define the specification of vehicle that can be sold between 2030 and 2035.

A significant number of responses raised concerns around the creation of an additional regulatory burden through the proposed approach in the CO2 Emissions Green Paper of combining a ZEV mandate with a CO2 emissions element effectively suggesting this was double regulation. Respondents stated that this would increase the administrative burden on manufacturers, who would be required to track and meet two metrics, rather than the sole CO2 emissions metric now, and may lead to an overly complex or complicated regulatory framework. Others noted that retaining a CO2 based framework would allow for consistency across the European market, even if different targets were used, meaning fewer metrics need to be tracked across countries and fleets.

The government concluded that it understands the concerns raised around the additional administrative burden that could face manufacturers from having to comply with a new regulatory framework with a ZEV sales target and a CO2 emissions based target. Whilst it confirmed that both elements of these targets will be deployed from 2024, the CO2 requirements will be in place primarily to avoid increases in CO2 emissions from vehicles using fossil fuels, rather than to drive significant reductions. The intention being that this element of the regulation would not be a driver of further technical improvements from non-ZEVs on the assumption that manufacturers will continue to sell non-ZEVs that are of the same specification, or better, meaning their average CO2 emissions will need minimal monitoring. The ZEV mandate will act as the primary mechanism through which the government will deliver the UK's carbon savings and the transition to a zero emission vehicle fleet, while the CO2 element of the framework will ensure that vehicles based on 'old' technologies will continue to be regulated until they can no longer be sold.

Credits

The government confirmed that the creation of a ZEV mandate using powers provided by the Climate Change Act 2008 (“**CCA 2008**”) requires a tradable element to be included in the regime, but concluded that designing the credit system requires careful consideration in terms of banking/borrowing, credit longevity and whether there should be caps.

The government also recognised the importance of keeping the crediting system simple rather than running the risk of unintended consequences, such as the diluting of actual ZEV/CO2 targets if too many credits are in the system, as it enables certain OEMs to avoid producing battery electric vehicles and other compliant vehicles by instead choosing to rely on excess credits. The government does not anticipate banking or borrowing featuring in the new framework and wants to avoid a mechanism that encourages an oversupply in the first few years followed by a constrained supply at a later date.

The government agrees that if it decided to award credits to SZEC compliant vehicles or any other vehicles based on their efficiency e.g. PHEVs, that these vehicles should always receive less credit than a pure ZEV. However, to understand these issues further and how a crediting system would best be designed in the UK, the ZEV Mandate Consultation further consults on what criteria would be utilised when awarding credits.

The possibility to trade regulatory credits is similar to the position in Europe, where carmakers who struggle to meet stringent CO2 emissions standards can buy credits from less-polluting car manufacturers companies to meet new emission limits, or to lower their penalties if they do not stay within the standards.

Selling these regulatory credits has been an increasingly important part of Tesla’s business as the carmaker has pushed toward sustained profitability. In Europe, vehicle manufacturers may enter partnerships with other vehicle manufacturers to consolidate their fleets for emissions compliance purposes through pooling arrangements. For example, Fiat Chrysler Automobiles agreed to pay Tesla, Inc. to pool their fleets in Europe, thereby enabling Fiat Chrysler Automobiles to avoid emissions compliance fines.

Exemptions / Derogations

The government confirmed that it recognises that there may be legitimate specific use cases where certain specialist vehicles and/or manufacturers may require more time to transition to zero emissions. The ZEV Mandate Consultation will explore a very limited range of time-limited derogations and/or exemptions to accommodate this transition.

Zero Emission Vehicle (ZEV) Mandate

The key areas that the DfT are consulting on in the ZEV mandate are as follows:

- the level of ZEV uptake (trajectories);
- how certificates could be allocated and used;
- the banking, borrowing and transfer of ZEV certificates;
- the possibility of derogations and exemptions within the ZEV mandate;
- the operation of the ZEV mandate; and
- how to regulate the non-ZEV portion of the fleet.

ZEV uptake trajectories

The aim of setting ZEV uptake trajectories from 2024 to 2035 is to provide market certainty for vehicle manufacturers, energy providers, investors and chargepoint operators and to set out legally binding annual targets that manufacturers must meet.

ZEV certificates

Through the ZEV mandate, manufacturers will have ZEV sales converted into 'certificates' and be required to hold a certain number of certificates at the end of each year in relation to the total number of vehicles they have sold. The ZEV mandate consultation asks participants for their views around how the certificate system should operate and what incentives should apply for vehicle attributes beyond exhaust emissions e.g range, battery efficiency.

Banking, borrowing and transfer of ZEV certs

The ZEV mandate consultation asks for feedback on the government's initial preferences for the certificate scheme to not allow any form of banking, borrowing, or pooling and whether trading should only take place in the same period in which the certificate is earnt or if it should be more flexible. Pricing of ZEV certificates is also considered, including whether there should or shouldn't be a minimum price set for selling certificates and/or a cap on the number of certificates that can be earnt in a year by a vehicle manufacturer.

Operation of the ZEV mandate

Linking entities

The consultations acknowledge that different rules apply in Great Britain to those in Northern Ireland. Once the 'full' Great Britain scheme is operational, manufacturers will be required to establish a legal entity in Great Britain to liaise with the Vehicle Certification Agency to obtain domestic type approval, allowing vehicles to be sold in Great Britain. The ZEV mandate asks participants whether they have any concerns in this regard.

Exemptions / Derogations

Over half of respondents to the CO2 Emissions Green Paper agreed in principle to exemptions and derogations being available in specific use cases. The ZEV mandate asks for feedback on what vehicle types should be exempt from the ZEV mandate requirements.

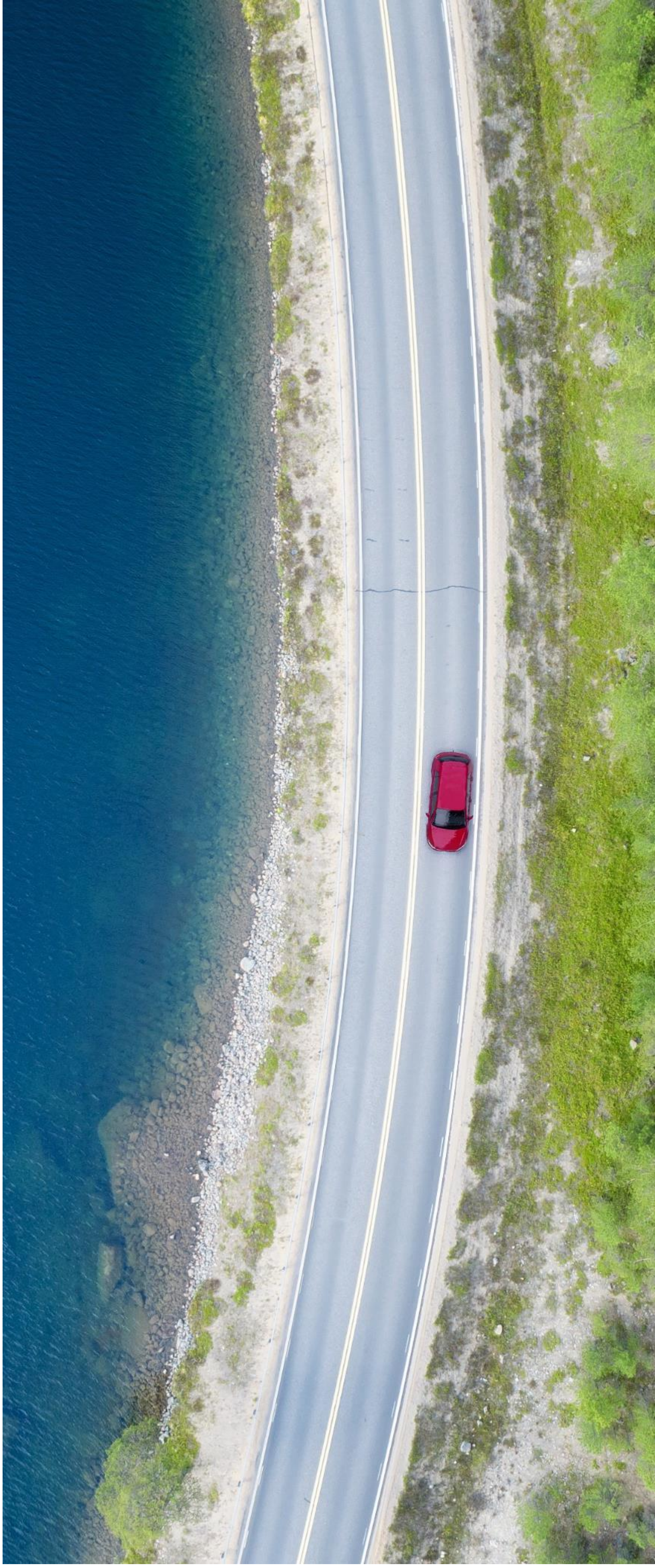
The ZEV mandate explains that derogations refer to the adapted targets that some vehicle manufacturers could receive if they meet pre-determined criteria. This could mean reduced obligations for smaller volume or SME vehicle manufacturers, on the basis that they have a reduced ability to decarbonise compared to major manufacturers, and in some cases potentially receiving no target for the smallest manufacturers. The ZEV mandate confirms that any derogations will need to be compliant with the CCA 2008 trading scheme. Some respondents to the CO2 Emissions Green Paper consultation suggested that derogations should be extended to small or niche volume manufacturers, however little detail was provided on what they should be.

Regulating CO2 emissions in the new non-ZEV fleet

The ZEV mandate confirms that the CO2 emissions part of the regulation will be in place primarily to prevent any part of the fleet being left 'unregulated' and that it should be assumed that any vehicle that meets the SZEC definition would be part of the CO2 regulatory framework and not the ZEV mandate.

Conclusion

The scope of the government's plans for meeting its CO2 emissions targets through a ZEV mandate are undoubtedly ambitious, but they are in line with plans elsewhere in the world.



The key to a smooth transition is for clarity to be reached on the ZEV mandate as soon as possible to prompt further EV sales and investment in battery technology and charging infrastructure so that the UK is equipped ahead of the 2030 target. As secondary legislation will be laid before Parliament in 2023, with the enactment of statute occurring on 1 January 2024, the government's legislative road map is cutting it fine for many car and van manufacturers, but the results of the CO2 Emissions Green Paper and items for discussion in the ZEV Mandate Consultation do offer a helpful insight into the direction that the law is headed.

Many companies in the UK's EV sector, from manufacturers to developers of charging infrastructure, have grown considerably since the government announced its roadmap to ending the sale of petrol and diesel vehicles. Clarity on the key areas of consultation in the ZEV Mandate Consultation will hopefully give them the ability to forecast future demand and ensure that the EV infrastructure is sufficiently developed to support it.

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