

Written evidence from the Ford Motor Company (ELV0086)

House of Lords Inquiry into Electric Vehicles ***Ford Motor Company Response***

Introduction

Ford Motor Company fully supports the UK Government's ambitions to decarbonise the transportation sector and welcomes the opportunity to outline our priorities to ensure an actionable plan to deliver both the necessary carbon savings for the transport sector and support for the industry and the consumer in accelerating the electrification transition.

Ford is taking significant steps in the transformation to Company-wide carbon-neutrality, with commitments for Europe including the UK to go all-in on electrification for passenger cars by 2030 and to significantly grow and transform our leading commercial vehicle business to fully zero emission vehicles by 2035. With the announcement of our new Ford Model e business division, we demonstrate our full commitment to deliver breakthrough electric vehicles at scale and accelerate our electrification plan. In parallel, Ford is targeting carbon neutrality for all European operations by 2035 – including our own manufacturing, our direct suppliers and logistics. The automotive sector is a crucial element of the UK economy and must rapidly reduce carbon emissions across all models and supply chains and support customer demand to enable the UK net zero commitments.

Government approaches

1. What are the main obstacles to the achievement of the Government's 2030 and 2035 phase-out dates? Are the phase-out dates realistic and achievable? If not, what steps should the Government take to make the phase-out dates achievable?

Ford remains absolutely committed to delivering an all-electric car line-up by 2030, and commercial vehicle line-up by 2035, and has supported the development of the Government's ZEV mandate. Since 2022, Ford has observed a softening of EV sales for both cars and vans. This has been driven by various factors, including an adverse total cost of ownership equation (high electricity prices compared to forecourt fuels, absence of retail sales incentives) and low consumer confidence in the accessibility and reliability of a UK-wide charging infrastructure. We expect these to be further compounded by the introduction of the 10% battery rules of origin tariff on EU and Turkish-built vehicles in January 2024, the anticipated depletion of the Plug-In Van Grant budget next year, and the introduction of VED on electric cars and vans in 2025.

Ford maintains, that with the relevant enablers in place the phase out can be achieved in 2030/2035. Ford is going all-in on electrification, but there remains a great deal to resolve if we are to create a thriving EV market in the UK. Government needs to further incentivise retail consumer demand, as we have

consistently seen across most European markets, and must take ownership of charging infrastructure development.

2. Do the 2030 and 2035 phase-out dates serve their purpose to incentivise the development of an EV market in the UK? To what extent are car makers focusing on one date or the other? What are the impacts of the deadlines on the ability of the UK supply chain to benefit and how could the Government seek to further support the development of the UK EV industry? Would the introduction of a plan with key dates and timescales support the development of the EV industry in the UK?

Ford remains absolutely committed to delivering an all-electric car line-up by 2030, and all-electric commercial vehicle line-up by 2035. Ford has supported the principle of a ZEV mandate throughout its development, and we believe it will provide a crucial demand signal to infrastructure providers to invest. We have seen from other markets that firm and reasonable end dates for new ICE registrations helps the EV market to develop and, therefore, the 2030 and 2035 timings should not be relaxed.

However, mandating sales targets on their own will not generate a successful EV transition. Industry has urged closer cooperation with Government to develop a comprehensive plan that will help to build a thriving EV market, especially in its early phases. This should include greater consumer incentives, durable tax reliefs (VED, BIK) and national targets for charge point installation.

The linked SZEC (significant zero emission capability) definition is also a key element for manufacturers planning and investment decisions, ensuring their businesses are prepared for the permitted vehicle technology up to 2035. This definition is required without delay.

3. What specific national policies, regulations or initiatives have been successful, or have hindered, EV adoption to date? Are these policies or initiatives fit for purpose?

Policies that hinder EV adoption include disproportionately high UK electricity prices relative to forecourt fuels, the impending introduction of 10% battery rules of origin tariff, the anticipated loss of the Plug-In Van Grant in 2024, and the introduction of VED for electric cars and vans in 2025, especially the Expensive Car Supplement. The latter was introduced as an additional "luxury tax" in 2017 for vehicles priced over £40,000. Had this threshold kept pace with inflation it would be in the region of £52,000 today. The average price for EVs across the UK market is £50,000.

Further, the UK's energy distribution system is overwhelmed with applications to supply or access electricity. A mindset change and proper resourcing is required now to ensure connections can be made in a timely and cost-efficient manner. Linked to this, consumers have little confidence that there will be an accessible, reliable, and cost-effective national charging infrastructure to support their EV

purchase in the near-to-mid term. Manufacturers will respond to the pressure of targets, on the assumption that all the relevant enablers are in place.

In relation to Light Commercial Vehicles (e.g., Ford Transit), the additional weight for the EV battery drives an increase in Gross Vehicle Mass (GVM) in order to meet a similar parity in payload. A GVM above a certain level (in this case 3500kg) moves a light commercial vehicle into a different vehicle classification (from N1 to N2). For N2 vehicles, different legislation applies that impacts customers negatively in terms of cost and resource planning. Examples include:

- tachometer requirements – for EVs this is required for any vehicle travelling outside 62 miles of their operating base.
- limitations for younger drivers for Cat B licence derogation
- Speed limitations (56mph for N2 vehicles)
- Annual MOTs which are more expensive than N1 and locations aren't as readily available (booking times are also considerably longer)
- Additional driver training (adding further complexity that an ICE equivalent does not require)

Policies that drive EV adoption rate include demand side incentives, ensuring market uptake. Implementation of electric vehicle grants, such as the Plug-In Car and Van Grants, in combination with higher taxation on internal combustion engine and tax benefits for EVs, support cost parity between BEV and ICE and promote market demand. For example, Norway and the Netherlands have provided consistent EV taxation benefits and non-fiscal support as well as ICE disincentives (pull and push principle). Alongside a growing charging network this has driven a high demand for electrified technology. Internal analyses of public charging infrastructure development, based on European Alternative Fuels Observatory data, shows that the UK's performance is lagging compared to Europe.

4. Given that the Government should apply a behavioural lens to policy—which involves people making changes to their everyday lives, such as what they purchase and use—is there a role for clearer communication of the case for EVs from the Government? If so, who should take the lead on delivering that?

There needs to be a consumer-centric approach to any transition of this magnitude. Currently this is lacking as evidenced by a vocal anti-EV campaign which emerged in early 2023. Policy leadership is required from Government, which includes clear and consistent messaging of their intent and confidence in the Net Zero transition. Delayed policy delivery and inconsistencies damages industry and seeds doubt with the media and the public. It was noted that following the Uxbridge by election, the electoral attractiveness of “green policies” was questioned and Government allowed uncertainty over 2030 to take hold, further emboldening the anti-EV media campaign. Such instability undermines the seismic investments industry is making to decarbonise road transport.

There are many helpful recommendations made by the Government's Skidmore Review which should be adopted, including:

- #1 Stable environment for business to plan and invest BEIS/ HMT - Government should publish an overarching financing strategy covering how existing and future government spending, policies, and regulation will scale up private finance to deliver the UK's net zero enabled growth and energy security ambitions. This should include setting out the role of UKIB, BBB, BII, and IPA and UKEF in the transition.
- #6 Strengthen parliamentary scrutiny - 2025 New 'Net Zero select committees' should be created in both Houses of Parliament.
- #7 Strong delivery governance No10/ BEIS 2023 - Government to establish an 'Office for Net Zero Delivery' by Spring 2023, to ensure that the cross-departmental priorities for net zero are properly managed.
 - #8 Strong delivery governance No10/ BEIS/ DfT/ Defra/ DLUHC 2023 - Government to consider the case for creating new separate delivery agencies to deliver long-term decarbonisation programmes.
 - #18 Robust supply chains BEIS/ HMT/ DIT 2023 - The Government should, by autumn 2023, undertake net zero infrastructure and technology critical supply chain analyses to inform decisions at the next Spending Review on where support akin to the Automotive Transformation Fund could add value.
 - #40 Hydrogen BEIS 2023 - Government should deliver transport and storage business models as soon as feasibly possible and take a pragmatic approach to support key 'no regrets' transport and storage projects.
 - #79 Transport DfT 2024 - Government to swiftly deliver the ZEV mandate, to apply from 2024, while maintaining regulations and funding to support the uptake of electric and other zero emission vehicles, and continuing to drive emission reductions from internal combustion engines
 - #106 Transport HMT 2024 - Government to equalise VAT on public and private electric vehicle charging in 2024.

5. What is your view on the accuracy of the information in the public domain relating to EVs and their usage?

Significant improvements have been made in transparency of vehicle performance information since transitioning from NEDC to WLTP test procedures. WLTP regulation was developed successfully with input from many stakeholders through UNECE, including the UK Department for Transport, to decrease the gap between real-world and type-approval test procedures. Although it is widely understood that a laboratory test procedure cannot cover customer behaviour under all scenarios, Ford believes that WLTP is the right representation for regulatory purposes and provides a basis on which to set wider frameworks and provides customer with reliable and comparable information on electric vehicle performance. In addition, WLTP (UNR-154) continues to be updated due to the data-based feedback loop from various global testing experience and lessons learned.

To supplement this information, Ford Pro has developed a tool to provide light commercial vehicle fleet managers with a real-world estimate of the EV van mileage they might expect under different operating conditions:
<https://www.ford.co.uk/vans-and-pickups/e-transit/range-calculator>

In parallel, DfT, VCA and SMMT are working on a set of standardised metrics to help consumers better understand EV capabilities and make direct comparisons between different models and manufacturers.

6. What are the overall environmental benefits that would result from achieving the 2030 and 2035 targets?

Ford is doing its part globally to achieve carbon neutrality no later than 2050 – and in Europe no later than 2035 – by focusing on three areas that account for approximately 95% of our carbon emissions: our vehicles, operations, and supply chain. Our ambitious 2050 goal demonstrates our commitment to the Paris Agreement, and the UK ZEV mandate forms part of this journey.

Through their own impact assessments Government have modelled the environmental benefits for overall carbon reduction across the industry in relation to the 2030 and 2035 targets. Prior to the announcement of these targets, Ford had already identified the need for rapid roll-out of electrified product and announced our all-in on electrification plan. Ford supports a rapid transition, investing in the necessary technology, facility, and skills upgrades.

7. What are the likely costs that will be faced by consumers as a result of the Government's phase-out dates for non-zero emissions vehicles? Are there policies or initiatives that the Government could use to specifically target barriers arising from unpredictable costs to the consumer, for example significant fluctuations in the cost of electricity, changes to road taxes, or the introduction of low emission zones?

ICE/EV price parity is not expected until the end of the decade. The April 2025 EV VED introduction for cars and vans and the anticipated depletion of the Plug-In Van Grant in 2024 should therefore be delayed until then, ensuring that EV uptake continues favourably. The UK also has a unique high electricity cost problem that it needs to be brought into line with our direct European competitors.

Low Emission Zones are a devolved issue, determined at the local level as a response to local air quality concerns. These emissions are regulated pollutants (e.g., NO_x, PM) and should not be confused with net zero which refers specifically to carbon emissions. However, one of the benefits of electric vehicles, whether battery or hydrogen fuel cell, is that they produce no tailpipe emissions and are therefore highly suited to use in LEZs.

8. What are the main routes for acquiring an EV? Which aspects of these routes are working well, and which aspects could be improved?

Ford will have 9 fully electric vehicles in the UK market by 2025. For passenger vehicles, over 50% of our sales are fleet such as contract hire, and salary sacrifice schemes. The low BIK tax on EVs in comparison to internal combustion engine vehicles makes them especially appealing to company car drivers. For light commercial vehicles, 75% of sales are to fleets covering our entire range. This does vary with the size of the vehicle, for example, 90% of large Transit sales are to fleets. For retail customers, a high percentage of purchases are through a monthly payment route.

EV residual values (RV) have been detrimentally affected over the last few months for both passenger vehicle and commercial vehicles. One of the root causes for this has been a lack of demand / customer acceptance of used EV vehicles. The lowering in RVs is an industry wide issue and any reduction in RVs will lead to an increase in monthly payments for end user customers. Lowering of RVs also impacts on the total cost of ownership (TCO) analysis that any customers looking to buy new vehicles will make. Disparity between diesel/petrol and energy prices, particularly as a result of the Ukraine war, or the proposed removal of the Plug-In Van Grant also results in an unfavourable TCO calculation.

9. What are the main consumer barriers to acquiring an EV, either through purchasing, leasing, or other routes?

Cost remains the largest barrier, increased further with high energy prices and cost of living squeeze. According to our internal market forecast, this has reduced the appeal of EVs in the market. A discernible knowledge gap remains, with customers defaulting to ICE vehicles as this is what they are most familiar and comfortable with. This is compounded by the current prevalence of anti-EV messaging.

One of the main barriers to entry continues to be the available charging infrastructure. In addition to passenger vehicle concerns, the lack of adequate commercial vehicle orientated charging sites remains an issue. The size of commercial vehicles and the potential for them to be towing as well, means a site designed for cars may not be fit for purpose for a CV, particularly if they are sited in parking areas with height restrictions. Most of the national high-speed network only has charging provision for passenger vehicles.

Around half of UK residences have no off-street parking and are reliant on on-street chargers where available and operational. On-street charging attracts a commercial rate of VAT as opposed to domestic VAT rate for those with off-street charging capability, making the move to EV a more difficult choice for some.

10. How is the Government helping to ensure that EVs are affordable and accessible for consumers, and are these approaches fit for purpose?

Government has established the £450m LEVI fund to support local authorities roll out of charging infrastructure. Unfortunately, local authorities are under no obligation to act, and more than two-thirds of UK councils have yet to install any kerbside EV chargers, and nearly half of councils have no plans to install residential on-street chargers in 2023. While vehicle manufacturers are supportive of EV targets through the ZEV mandate, there are no such targets for the development of local charging infrastructure, and no support for the deprived or rural communities where returns on investment are low.

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11. Do you think the range of EVs on offer in the UK is sufficient to meet market needs? Which segments are under-served and why? Why is the UK market not seeing low cost EVs, particularly in comparison to China?

In broad terms the UK market is well supplied with EVs of all types. Small cars have traditionally attracted smaller profit margins and are generally only feasible when manufactured in large volumes. Without cost parity or adequate consumer incentives the demand for small EVs will remain suboptimal.

Manufacturing in Europe also is relatively more expensive because our environmental, health and safety, and employment standards are broadly more stringent than elsewhere. China invested in battery technologies much earlier than Europe and their dominance in battery raw materials has seen favourable production costs for local EV companies. This has led to lower overall EV manufacturing and parts costs (e.g., battery costs), in China. Even with import tariffs and shipping costs to the UK they can offer competitive prices.

Failure to address the battery rules of origin issue before January 2024 will result in an additional 10% tariff on European and Turkish EV imports, which will disproportionately benefit ICE sales as well as the import of EVs manufactured outside Europe.

12. What is the future role of L-segment and personal light electric vehicles, and how will that impact car ownership and usage? What is inhibiting their uptake?

No Ford comment.

13. What is your assessment of the current second-hand EV market? How is the second-hand EV market projected to develop between now and the phase out dates?

According to SMMT data, used EV sales are thriving. The latest insight from SMMT analyses show UK used car market growth by 4.1% in Q1 2023.

Ford's internal assessment has shown that the past 12 months have been particularly tumultuous for all electric vehicle residual values, driven in-part significant increases in energy prices, concerns over charging infrastructure roll out and the 2025 introduction of VED on EV cars and vans. As a result of these and other factors, the overall industry has seen a decline for electric vehicle residual values across all manufacturers.

14. What is the relationship between EV leasing and the second-hand market and how do they interrelate?

EV leasing is an affordable means of enabling new car ownership without much of the up-front costs. This also results in a regular stream of used EV products for the second-hand market.

15. What barriers are there to achieving a sufficient supply of second-hand EVs, mindful that second-hand vehicles make up a high proportion of all vehicles purchased?

The majority of new EV car sales are through business fleets as a result of favourable BIK treatment, and this is where most of the used EVs market will be supplied from. The retail customer, however, remains unsupported, in stark contrast to the UK's major European neighbours, and we are therefore missing an important contributing component to the used EV market.

16. What is the value and role of alternative transport models such as car clubs and micro mobility vehicles in the Government achieving the 2030 phase out date, and how should the Government consider their roles and opportunities for use in transport decarbonisation?

The Government aims to encourage car clubs through EV credits in the ZEV mandate. It should be noted that the UK ZEV mandate final regulation has still not been released. Ford urges government to finalise the release of the regulation with urgency.

17. Are consumers charged higher rates of insurance for an EV when compared to an internal combustion engine (ICE) vehicle, and if so, are these higher rates justified? Can the Government do anything to mitigate this?

Ford continues to work closely with the Association of British Insurers and Thatcham to ensure that our vehicles remain competitive in the EV marketplace without compromising vehicle security.

Experience of using an EV

18. What are the main challenges that UK consumers face in their use of EVs?

Some of the significant challenges for UK EV customers include access to a reliable, connected public charging infrastructure, and ensuring availability at the time they need it. The high cost of electricity compared to forecourt fuels is another barrier, which is further exacerbated when paying commercial rates of VAT for on-street charging. Finally, the threat of incurring VED charges from 2025, particularly for vehicles costing more than £40,000, will increase total cost of ownership.

19. What are the main benefits that UK consumers could realise from using an EV?

Electric Vehicles have many benefits including:

- Improved torque delivery and driving experience.
- Fun, quiet, lower-stress and clean driving
- Lower running costs overall
- Lower maintenance and service costs
- No exposure to fuel emissions or spillages during refuelling
- Access to city centres operating LEZ schemes
- Health benefits due to improved local air quality (e.g., in cities)

20. How prepared are car dealerships, service networks, repairs and maintenance organisations, breakdown services and aftermarket suppliers to meet the growing EV uptake?

More work is certainly needed here, not least because all such sites will need to have higher power grid connections with long delays to implementation, and high and very varied capital costs. Significant investment is required by a dealership in terms of aftersales (EV equipment bays, etc.) to installing charging facilities on-site. Ironically vehicles towing broken down EVs away will initially be diesel powered. All organisations servicing the EV industry must be net zero or have a plan to be.

There is a particular focus on the electric vehicle customer experience within our dealership network where we aim to give the best possible experience for our customers. Since launch, the Ford Mustang Mach-E has a specified training pathway for our dealership teams, forming part of their mandated training. Recently, additional training has been created to cover the newly introduced technologies such as BlueCruise handsfree driving.

Later this year Ford is launching a brand new 'EV+ training programme', specifically designed to enhance the knowledge of sales consultants and ensure there is at least one advanced EV expert in every dealership. In summary, Ford are committed to the training and upskilling of our sales teams, giving them the skills and knowledge when handling all EV customer queries.

21. How does the charging infrastructure for EVs need to develop to meet the 2030 target? Does the UK need to adopt a single charging standard (e.g., the

Combined Charging System (CCS)) or is there room in the market for multiple charger types?

The UK charging infrastructure needs to grow rapidly. Registrations of plug-in hybrids and battery-electric cars grew by 280.3% between 2019 and 2021 while the number of charge points increased by only 69.8%.

There is much to do in terms of levelling up if we are to move the bulk of the driving population into EVs. The Government's free-market approach will ensure the most profitable charging projects are implemented while many rural and/or deprived areas will not be served. It is possibly no surprise that Westminster has more charging points than Birmingham, Manchester and Newcastle combined.

Charging infrastructure roll-out in the UK is lagging compared to other European countries and there is no obligation to build up chargers linked to the number of EVs on the UK roads. Specific and binding targets for public charging infrastructure roll-out need to be implemented. Current Government prioritisation has been on higher-powered public charging which risks electric vehicle battery durability. UK Government must also focus on low powered over-night residential charging options.

Across the UK and Europe CCS is the primary single connector, and there is declining support for CHAdeMO and other legacy connectors. There is no need for a new connector to replace CCS.

22. The Government recently published the draft legislation of "Public Charge Point Regulations 2023". What assessment have you made of the draft legislation text, and what contribution will it make in ensuring the charging experience is standardized and reliable for consumers?

The new regulation aims to enhance the customer charging experience and increase customer satisfaction; however, it does not provide binding infrastructure roll-out targets in line with projected number of EVs on the road.

The new regulation needs more emphasis on roaming i.e., allowing a customer with a mobility service provider to be able to use a wide range of public point operators.

23. What assessment do you make of the requirements set out in the draft legislation of "Public Charge Point Regulations 2023" for charge point operators to make data free and publicly available, and how may this improve the EV charging experience for consumers?

The new rules for Charge Point Operators within the Public Charge Point Regulations 2023, will make the charging experience seamless. However, there may be a higher burden for charge-point operators to fulfil the requirements, so we must ensure that these requirements in combination with non-compliance penalties do not disincentivise investment in public charging infrastructure.

In addition, sufficient charging infrastructure in terms of volume and distribution is key to ensuring a positive charging experience for customers. Current regulation does not enforce binding targets linked to number of electric vehicles on UK roads.

24. In terms of charging infrastructure, are there unique barriers facing consumers in areas of low affluence and/or multi-occupancy buildings, such as shared housing or high-rise flats? Do you consider public EV charging points to be accessible and equitable compared to home-charging points? What can be done to improve accessibility and equity?

Yes, a free-market approach will not serve their needs. Home charging is significantly cheaper than public charging currently – the price must be similar if consumers without a place to charge are expected to use public charge points (although public charging does avoid the consumer having to cover the cost of a home charger so perhaps a premium could always be expected for public charging). Smart tariffs, such as low-cost time-based tariffs, means home charging could be significantly cheaper than public charging, and home charging is always accessible. For urban areas with few or no driveways this would require reserving specific EV charging spots which puts pressure on already limited parking supply.

Robust and safe solutions for terraced houses (not just flats) for home charging are also required – for example, troughs across pavements (to avoid trip hazards) may be a solution, but consumers still need to be able to park outside their houses for this to work and an electrical safety risk remains e.g., simultaneous contact with dissimilar earths.

UK should find a solution to allow access to charging for all. Charging at workplaces might be an alternative to serve the need of drivers without access to charging at home. Consideration must also be given to van users and these vehicles are likely to make first use of the infrastructure. CVs are often faced with parking restrictions (e.g., height barriers, parking footprint).

25. Is there a financial benefit to the consumer of choosing an EV over an ICE vehicle? Are there further benefits, aside from financial, that a consumer may gain from EV use?

Addressed in Question 19.

End of life disposal of EVs

26. What options are there for consumers for end-of-life management of batteries and EVs, and what impact does this have on consumer attitudes towards buying an EV?

An established network of Authorized Treatment Facilities across the UK for End-of-Life Vehicles (ELVs) where customers can bring back their ELV EVs free of

charge already exists. There exist multiple recycling technologies to cope with EV batteries. The capacity of the technologies will ramp up with sufficient quantities of EV ELVs entering the market. A market driven approach will take care of the materials also in the batteries through normal business drivers.

27. What are the current regulations and responsibilities of disposal and recycling for EVs, and how effective are they? How much of the battery can be recycled from a technical standpoint, and how much of that is economically feasible?

When a vehicle reaches the end of its life it must be disposed of in an environmentally responsible way through an Authorised Treatment Facility (ATF). Through the End-of-Life Vehicles (ELVs) Directive, vehicle manufacturers (VMs) have an obligation to provide free take-back for cars and light commercial vehicles.

Since 2015 the industry must ensure that 95% (up from 85% previously) of the vehicle by weight is re-used, recycled, or recovered. The sector has achieved the former target, but the new tougher limits have required considerable investment from both the vehicle manufacturers and the recycling industry in new processes.

28. Is there a risk that the residual value of EVs may be lower than the value of the EV as a source of recoverable critical minerals, and how might this effect the flow of EVs into the second-hand market?

No Ford comment.

National and regional issues

29. What are the challenges or concerns around grid capacity in relation to significantly increased EV adoption?

OFGEM, National Grid and distribution network operators (DNOs) appear ill-equipped for the sheer volume of connections and capacity upgrades required to support a successful EV transition in a very short period of time (6 years). This requires a mindset change supported by substantial additional resource and the streamlining of approval processes to deliver.

The "standard" home electrical current limit of 60A may not be enough as more and more people look to charge 2 electric cars (32A home chargers x 2 = 64A). If each home increases to 100A, the street supply risks becoming the next bottleneck and substations need to be able to maintain supply quality with this increased demand. Some residences might need more than 2 chargers especially big family homes where there are more than 2 cars in the household.

30. What is the role of distribution network operators in ensuring EV infrastructure can be rolled out sufficiently to meet 2030 target?

Closer cooperation with the charge point installers and a streamlined planning and approval process. Ensuring that residential demand increases are managed reliably and robustly, but also for public charging hubs which demand a significant step increase of capacity that these can be integrated into the network quickly (can be a major workstream for a DNO for big hubs).

31. What are the requirements, challenges, or opportunities for the development of public charge point delivery across the UK? How will the development of EV charging infrastructure in the UK interact with existing planning regulations?

Generally adding small scale public chargers is not too impacted by regulations and Government has recently amended permitted development rights to facilitate the installation of charge points in some situations. Large public charging hubs, however, can be more challenging due to costs, grid connectivity and planning barriers. While planning is an obvious necessity, it should be streamlined to enable the charging infrastructure to grow at a pace commensurate with the proportion of new EV sales.

32. What are the issues facing rural residents, urban residents, and sub-urban residents and how do they differ?

Within rural areas, there is a lower need for public charging, where homeowners have sufficient space to install private wall boxes, whereas the situation for tenants will depend upon with their landlord. Urban areas face challenges with limited capability for home charging solutions due to the number of flats or terraced houses without private driveways. Public charging solutions close to residences are key. Suburban areas have the possibility for reasonable levels of home charging, although there will still be a demand for some public charging.

33. What role do you see local authorities playing in the delivering the 2030 phase out target, particularly in relation to planning regulations, charge points and working with District Network Operators? How can government best support local authorities in their roles?

Local Authorities should be required to meet minimum installation targets to support a successful roll out of the ZEV mandate. Currently local authorities are not obliged to make any use of the Government's £450m LEVI funding and it is easy to see how officers may already be stretched with existing statutory requirements. More specific funding programs for charge point roll-out should be implemented by local authorities. Germany, for example, has implemented incentives for combined solutions including solar, stationary batteries and wall boxes, but ensuring accessibility of charging infrastructure solutions across UK must be prioritised.

Planning regulations promoting solar panels in combination, where feasible, with home chargers for new builds could be considered, as well as incorporation of other renewable solutions into planning applications.

International perspectives

34. What are the successful approaches to the rollout and uptake of EVs in other countries, and what can the UK learn from these cases?

The UK's major competitors, Germany, and France, provide very strong consumer incentives to assist with EV purchase. Countries like Norway and the Netherlands have high taxes on ICE vehicles while consistently offering non-financial benefits to EV buyers. Subsequently both countries enjoy high rates EV adoption. The UK Government offered a Plug-In Car Grant some time ago, which was a much lower incentive, and the scheme was curtailed too soon. ICE vehicles are still more affordable compared to EVs in UK.