

Written evidence submitted by Bright Blue (EVP0032)

Bright Blue welcomes the opportunity to respond to the Transport Committee's request for written evidence, particularly regarding the actions required by Government and private operators to encourage greater uptake of electric vehicles and the infrastructure required to support them.

In January 2021, Bright Blue published a report titled [*Driving uptake: maturing the market for battery electric vehicles*](#). The report looks at the leading barriers to EV uptake in the UK; international best-practice in terms of EV policy; and puts forward eight policy recommendations for the UK.

What are the actions required by Government and private operators to encourage greater uptake of electric vehicles and the infrastructure required to support them?

Recommendation one: Front-load the value of the Plug-in Car Grant so it equals £5,000 from April 2021 and then gradually reduce its value in regular intervals before being phased out completely from October 2023

Currently, EVs have a higher upfront price than their internal combustion engine (ICE) vehicle counterparts. To reduce the upfront price of new EVs and make them more accessible for consumers to purchase, the UK Government has introduced the Plug-in Car Grant, which currently provides a grant of £3,000 towards the purchase of a new ULEV. The Plug-in Car Grant is available to ULEVs, but the strict emissions requirements means in reality only EVs are now eligible for support.

Whilst the Plug-in Car Grant has been extended until 2023, the value of the grant in this period is still open to being changed at any given moment. This creates uncertainty for vehicle manufacturers, dealers and consumers alike. In addition, given predictions around EVs reaching price equivalency with ICE vehicles in the mid-2020s, it is appropriate to establish a trajectory for the complete phase out of the Plug-in Car Grant.

To capitalise on nascent buyers, the Plug-in Car Grant should be front-loaded so its value is £5,000 from April 2021 in order to support near-term demand, before being gradually decreased at regular intervals until it is phased out altogether in October 2023. In practice, this sets a clear 30 month trajectory for the phase out of the Plug-in Car Grant. It encourages households and businesses to purchase new EVs as soon as possible, as delay only continuously reduces the amount of government subsidy available to them.

By front-loading the value of the Plug in Car Grant and gradually decreasing it over 30 months, this would prevent a demand cliff-edge where the grant suddenly ends. It also means consumers would be encouraged to bring forward their purchase of an EV. This would support the saturation of the market to aid the second hand EV market. The sooner new EVs are purchased, the sooner they will trickle down into the second hand market, benefiting

those on lower incomes. In essence, a final two-year window would be provided to consumers to benefit from the main fiscal subsidy for the purchase of new EVs.

Recommendation two: Establish a Used Vehicle Plug-in Car Grant of at least £2,000 to support low income people into EV ownership

The upfront price for EVs remains high relative to ICE vehicles in both the new and second hand vehicle markets. For less well-off households, which typically purchase vehicles from the second hand market, this is a barrier to EV ownership.

To make EV ownership more accessible for less well-off households, a Used Vehicle Plug-in Car Grant should be established, providing a grant of at least £2,000 for the purchase of a used EV from the second hand market, emulating the Netherland's fiscal support for second hand EV purchases. Incidentally, France also provides similar fiscal support of €1,000 (£885)¹ for the purchase of a second hand EV.²

To be eligible for the Used Vehicle Plug-in Car Grant, vehicles should have CO₂ emissions of less than 50 grams per kilometre and a minimum zero emission driving range of 112 kilometres (70 miles), matching the eligibility criteria of the existing Plug-in Car Grant for new EVs. In addition, vehicles should not cost more than £30,000 to prevent high-end luxury vehicles being subsidised.

To be eligible for the Used Vehicle Plug-in Car Grant, vehicles could be purchased from a dealership to prevent subsidy fraud via private sales. In order to target the grant towards those whom it aims to support, only households or individuals which are considered low income could be eligible for the grant.

The Used Vehicle Plug-in Car Grant should be permanent for the foreseeable future, lasting beyond our proposed trajectory for the existing Plug in Car Grant for new EVs, but the value of it should be reviewed regularly to assess its efficacy and necessity as EVs get closer to price equivalency with ICE vehicles.

Recommendation three: Enable enhanced capital allowances for businesses which purchase zero emission vehicles for the purpose of renting and leasing them for at least five years

Enhanced capital allowances allow businesses to deduct the cost of buying low-carbon vehicles, including EVs, from business profits before tax is applied. If a vehicle produces less than 50 grams of CO₂ per kilometre, thereby encompassing EVs, the vehicle's total cost can be deducted before tax in the first year. However, this fiscal incentive does not extend to businesses which purchase low-carbon vehicles for the purpose of renting and leasing them to other businesses and consumers.

Commercially leased fleet vehicles have a high turnover of every 38 months on average, and new rental vehicles are kept on fleet for approximately one year before being released.³ As such, they are a strong source of supply for vehicles in the second hand market. Commercial fleet vehicles accounted for 22% of used vehicle transactions in 2019.⁴ But, given EVs are excluded from being tax-deductible for businesses which purchase them for the purposes of renting and leasing, such businesses are not incentivised to purchase EVs. As a result, less EVs trickle down into the second hand market.

Businesses which purchase vehicles for the purpose of renting and leasing should be allowed to deduct the cost of the vehicle from business profits before tax in the first year, provided that the vehicle produces less than 50 grams of CO₂ per kilometre and has a minimum zero emission driving range of 112 kilometres (70 miles). This allowance could automatically expire in five years, only renewed once an assessment has been made of its efficacy and necessity as the price of EVs falls and their market penetration increases.

This would have a triple benefit for EV uptake. First, as commercial fleet vehicles accounted for over half of new UK vehicle registrations in 2020, a greater number of EVs would be registered on UK roads as renting and leasing companies are incentivised to purchase EVs because of their status as tax-deductible.⁵ Second, by passing on the benefit of enhanced capital allowances, consumers who rent or lease a EV would benefit from a cost saving of up to £20 a month.⁶ Third, as fleet vehicles have a shorter life cycle, these vehicles would trickle down relatively quickly into the second hand market, giving less-well off households more opportunities to purchase an EV.

Recommendation four: Introduce a mandate immediately stating that all new vehicle purchases for the public fleet must be EVs

Public fleet vehicles present an opportunity to bolster the second hand market for EVs. There are approximately 25,000 central government fleet vehicles and 50,000 vehicles managed by local councils in the UK.⁷ In its 2017 Budget, the UK Government made a commitment to having 25% of government department fleet vehicles electric by 2022.⁸

However, this is unambitious and will result in a smaller number of EVs trickling down into the second hand market than if a stronger commitment was made. Elsewhere, countries such as New Zealand have mandated that all new vehicle purchases for the public fleet must now be EVs or hybrid vehicles.⁹

The UK Government should introduce a mandate immediately stating that all new vehicle purchases for the public fleet, including central government vehicles and vehicles managed by local councils, must be EVs. Whilst these vehicles would be more expensive to purchase than ICE vehicles, central and local governments would benefit from the lower lifetime costs associated with EVs.

Such a mandate would increase the proportion of EVs in the central and local government fleet, and when it comes time to renew their fleets once more, these EVs would trickle down into the nascent second hand EV market. This would give less-well off households more opportunities to purchase an EV.

Recommendation five: Introduce an obligation on all local authorities to install on-street electric vehicle chargepoints within three months when requested by residents unless there are reasonable grounds for objecting, facilitated by an online system established and administered by the local authority

For EV drivers whose households do not have access to off-street parking, they are reliant upon publicly available chargepoints in order to charge their EV. Unless there is an on-street chargepoint near their house, they are unable to charge their EV whilst at home, presenting a major barrier to EV uptake.

Currently, local authorities determine where on-street chargepoints will be installed in residential areas, funded in part through the Onstreet Residential Chargepoint Scheme. We recommend that this process should be demand-led, with an onus on local authorities to install on-street chargepoints when requested by residents within three months unless there are reasonable grounds for objection, mirroring the demand-led on-street chargepoint scheme in the Netherlands.

EV drivers should be able to access an online portal established and administered by local authorities for making their request. Drivers would be required to show proof of purchase of an EV to their local authority, before making a request through the online portal for the installation of a chargepoint near their place of residence. The request could be assessed on various criteria, for example whether the driver has access to off-street parking, the walking distance to other existing or planned chargepoints in that area and the occupancy rate of nearby chargepoints.

If the request is approved, the local authority would open a consultation period of six weeks, where stakeholders could challenge or propose amendments to the plan. Following this, and assuming no setbacks as a result of the consultation period, the chargepoint would then be published on a map and other nearby registered EV drivers could be notified of its location before being installed.

Local authorities could either own the chargepoints or tender out their ownership to a private organisation. The operation of the chargepoint could also be tendered out to a charging network. All chargepoints across a borough or district would, if the recommendation below is implemented, be easily accessible regardless of charging network because of interoperability. But, if this was not implemented, any new on-street chargepoints in the borough should be grouped under a single tender to one charging network. This would ensure that all chargepoints within a borough or district would be accessible via the same charging network.

A demand-led, online on-street chargepoint scheme such as this would ensure that households with no off-street parking are not constrained by a lack of charging infrastructure when purchasing an EV, and can have confidence that a chargepoint will be installed relatively quickly near their place of residence if charging opportunities are not already available to them. Additionally, such a scheme would ensure that chargepoint installation is targeted towards areas where they would be utilised.

Recommendation six: Make interoperability a condition for central and local government funding towards chargepoints

By having interoperable chargepoints, EV drivers are not restricted to only charging at a chargepoint operated by networks which they have a subscription or membership to. Whilst this restriction is not a leading barrier to EV uptake, interoperability between charging networks would make it easier for EV drivers to access chargepoints operated by different charging network companies.

Interoperability occurs when EV drivers can access a chargepoint operated by a charging network which they do not have a subscription to, using their existing subscriptions to other charging networks. This is facilitated by peer-to-peer agreements between different charging network companies or a roaming hub, and suppliers settle the difference in price between them.

Some countries, such as Norway, require at least ad hoc access to charging if network companies wish to receive government financial support for the installation of chargepoints. In California, this is a legal requirement. The Californian Electric Vehicle Charging Stations Open Access Act prohibits any charging network company from implementing a subscription fee or requiring organisational membership in order to access charging.¹⁰ In other words, it requires charging network companies to provide ad hoc access at all their chargepoints. Similarly, in Germany, organisations which wish to receive government funding for the hardware and connection costs of chargepoint installation must ensure that the chargepoint allows roaming for all customers.¹¹

Unlike other countries such as the Netherlands and Germany, few cross-network agreements to facilitate interoperability exist in the UK. The UK Government provides significant amounts of funding for chargepoints through the CIIF, Rapid Charging Fund and to local authorities through the On-street Residential Chargepoint Scheme. By making central and local government funding for chargepoints conditional on the basis of providing interoperability, this would act as a catalyst for an increase in cross-network agreements and interoperability between charging networks. This would benefit chargepoint users by increasing the number of chargepoints that they could access using a single charging network subscription.

Recommendation seven: Require all petrol stations above a certain size to have at least three rapid chargepoints by 2023, funded in part by petroleum companies and in part by government

Despite there being more chargepoints than petrol stations in the UK, drivers continue to perceive there being a lack of charging infrastructure. Furthermore, research by the Behavioural Insights Team suggests that drivers think of recharging an EV in the same way as they do refuelling an ICE vehicle.¹²

By 2023, petrol stations in the UK above a certain size should be required to have at least three rapid chargepoints, which would be financed in-part by petroleum companies which ultimately own the trade-marks and business models of all petrol stations. Setting a date of 2023 would provide petrol stations with ample time to lay the necessary cabling and complete the installation of a rapid chargepoint. Chargepoints should be rapid so that they are able to deliver a quick charge and keep time spent recharging to a minimum.

With a cost of between £20-40,000 per rapid chargepoint, petroleum companies – who ultimately own the trade-marks and business models of all petrol stations – can and should be able to make a reasonable contribution to their installation, in an effort to decarbonise passenger vehicle transport and support EV uptake. Petroleum companies should be required to fund the installation of the chargepoints themselves in each relevant petrol station, whilst the UK Government could pay for the necessary grid connections through the existing Rapid Charging Fund.

It should be noted that large petroleum companies, such as Shell and BP, have already begun rolling out rapid chargepoints in petrol stations at some locations. Furthermore, in June 2020, Germany announced a similar policy requiring all petrol stations to provide a chargepoint. However, this will be financed through Germany's €130 billion COVID-19 economic recovery plan. We believe a part-industry, part-government funded approach is preferable.

By having at least three rapid chargepoints at every petrol station above a certain size, drivers can have security in knowing that they will be able to recharge their EV almost wherever they can locate a petrol station, and wherever they may have previously refuelled their ICE vehicle. As such, this policy would aid in dispelling driver anxieties around there being a lack of charging infrastructure, as well as range anxiety.

Recommendation eight: Make the inclusion of estimated lifetime costs mandatory for all used as well as new vehicle sales alongside the retail upfront price

Consumers focus on the upfront price of EVs and as such, their higher upfront price relative to ICE vehicles serves as a barrier to EV uptake. However, EVs typically always have a lower lifetime cost than ICE vehicles when also taking into account the cost of recharging/refuelling, maintenance costs and vehicle taxation.

The New Car Environmental Label provides consumers in vehicle showrooms with information on running costs, carbon emissions and, in the case of ULEVs (including EVs), zero emission driving range, when purchasing a new vehicle. Whilst this does emphasise the large savings that can be made by going electric, this is only applicable to new vehicle sales.

The inclusion of estimated lifetime vehicle costs should be made mandatory for all new and used vehicle sales alongside the retail price. For used vehicles being sold privately or through dealerships, the Vehicle Certification Agency (VCA) should establish an online tool to calculate vehicles' running costs using vehicle information such as fuel tank and engine size, battery capacity, weight, average maintenance costs and taxation, as well as contemporary fuel and EV charging prices. To make an easy comparison for consumers, the final figure should be displayed in pounds-per-100 miles. This VCA-accredited estimated figure must then be displayed along with the listed price of any vehicle for sale. This estimate could be provided for every model of every make of car.

By making the inclusion of estimated lifetime costs mandatory for all new and used vehicle sales alongside the listed price, consumers will take into consideration the lifetime costs, which typically favour EVs over ICE vehicles, when deciding on purchasing a vehicle. Additionally, this would provide greater transparency for consumers to make informed choices, particularly when purchasing a used vehicle from the second hand market.

About Bright Blue

Bright Blue is an independent think tank for [liberal conservatism](#). The Daily Telegraph has called us “The modernising wing of the Tory party” and the influential Conservative Home website has described us as “A deep intellectual gene pool for the Conservative Party’s future”.

Our work is guided by seven research themes: bountiful economy; clean environment; good lives; rewarding work; empowering government; just institutions; and connected communities. We were shortlisted as the 2016, 2017, 2018 and 2019 UK social policy think tank of the year and UK environment and energy think tank of the year in the prestigious annual Prospect Magazine awards.

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Endnotes

¹ Currency conversion as of Jan 2021.

² Erwan Benezet and Philippe Martinat, “Djebbari announces an ecological bonus of 1000 euros for the purchase of a used electric vehicle”, Le Parisien, <https://www.leparisien.fr/economie/djebbari-annonce-un-bonus-ecologique-de-1000-euros-pour-l-achat-d-un-vehicule-electrique-doccasion-11-10-2020-8400741.php> (2020).

³ Figures supplied by, and published with permission from, the BVRLA.

⁴ Ibid.

⁵ Society of Motor Manufacturers and Traders, “Car registrations”, <https://www.smmt.co.uk/vehicle-data/car-registrations/> (2020).

⁶ Figures supplied by, and published with permission from, the BVRLA.

⁷ Nick Collins, “Government cars go electric”, The Telegraph <https://www.telegraph.co.uk/news/uknews/road-and-rail-transport/10973594/Government-cars-go-electric.html> (2014); Gareth Roberts, “UK council fleet drops below 50,000 vehicles”, Fleet News <https://www.fleetnews.co.uk/news/2015/2/9/uk-council-fleet-drops-below-50-000-vehicles/54766/> (2015)

⁸ HM Treasury, “Autumn budget 2017”, <https://www.gov.uk/government/publications/autumnbudget-2017-documents/autumn-budget-2017> (2017).

⁹ New Zealand Parliament, “Wednesday, 2 December 2020 – volume 749”, https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansD_20201202_20201202 (2020).

¹⁰ California Legislature, “AB-1424 electric vehicle charging stations open access act”, https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB1424 (2019).

¹¹ Renewable Energy Association, “REA position paper: The interoperability of public charging networks in the UK”, <https://live.r-e-a.net/wp-content/uploads/2019/10/HI-RESInteroperabilityreport.pdf> (2019), 30.

¹² The Behavioural Insights Team and Transport Research Laboratory, “Driving and accelerating the adoption of electric vehicles in the UK”, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/914111/driving-and-accelerating-the-adoption-ofelectric-vehicles-in-the-uk.pdf (2020), 4.