



Department for Transport

From the Secretary of State
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Iain Stewart MP
Chair of the Transport Select Committee
House of Commons
London
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30 June 2023

Dear Iain,

Thank you for your letter of the 15 June 2023 following the Department's response to your committee's recommendations in your 'Fuelling the future: motive power and connectivity' report.

I am sorry the Committee felt the response did not address your recommendation on shifting its 'technology agnostic policy to a 'targeted technology investment' policy or that we did not provide more detail on our plans to reduce emissions from petrol and diesel vehicles on our roads or on how affordability may be a barrier to the widespread take-up of electric vehicles. I challenge this as I believe it does exactly that, but will address these points again, and where possible, provide extra clarity.

I want to be very clear on a fundamental point on the use of alternative fuels for surface transport. The Government is resolutely focused on transitioning to technology that delivers zero exhaust emissions. This will ensure the UK meets its legally binding targets on carbon, ending our contribution to damaging climate change, and eradicates the pollutant emissions that contribute to poor air quality and harm human health.

The previous response was clear that the Department's priority for the existing technologies that remain in use during the transition is to increase the production and uptake of low carbon fuels. But this must be done in a way that is affordable, scalable, and does not place a significant burden on the consumer or public purse. Relying on synthetic fuels to decarbonise road transport would put the Government at risk of failing to meet its economy wide targets on both CO₂ and air pollution emissions. Our response was also clear that it is targeting the use of these sustainable fuels within the sectors where electrification is not a currently viable option, such as aviation and maritime.

In addition, I believe the Department effectively addressed the Committee's overall conclusions on Government's technology policy throughout its response. However, as requested in your letter, I will address them specifically as follows.

The Government's approach to delivering its ambitions for greener transport is not outcome neutral, the end goal must be zero exhaust emissions. The Government's role is to set the vision and give industry the certainty and clarity that they need to invest. It is Government's role to set the regulations, support the early research and development (R&D) of new technologies, to work with the private sector to ensure that any required infrastructure is rolled out fairly and no region gets left behind, and make sure that this transition is delivering new green jobs and investment in the UK.

Where technology is uncertain, the Government supports a portfolio approach, which may lead to multiple solutions being the right choice where once there was one. A good example are HGVs where battery electric looks increasingly capable for lighter trucks, but for the largest and heaviest hydrogen appears to offer advantages in many use cases. The Government is investing millions in R&D in this sector, working with the private sector on real world demonstrations of the different technologies, to resolve uncertainty and create the evidence needed to support future investments in the supporting infrastructure. This approach is aligned with that of 'targeted technology investments', with Government strategically investing in research to generate the evidence needed to build the confidence of private investors.

However, where the market has largely backed a single technology solution, for example battery electric cars, the Government is not agnostic. Our support and commitment in the early years of the transition to electric vehicles is now unlocking significant investment from the private sector in essential chargepoint infrastructure.

The Committee expressed concern that the Government used technology neutrality as an excuse not to lead. In fact, the Government is leading a variety of transport decarbonisation work. In July 2021, Government published the Transport Decarbonisation Plan – the first such plan in the world – which sets the transport sector on the path to net zero by 2050, and in line with the Paris Agreement. The Plan remains world leading in terms of its scope and ambition today and this Government is working hard to deliver each of its 78 individual commitments.

For example, the Government has committed to end the sale of new petrol and diesel cars and vans by 2030, with all new cars and vans being 100% zero emission from 2035. By setting requirements for 80% new car sales and 70% new van sales to be zero emission vehicles (ZEVs) by 2030, the proposed ZEV mandate is the world's most ambitious car and van regulatory framework and will ensure that UK drivers are prioritised for future supplies of

ZEVs. This confirms the UK's position at the forefront of the ZEV transition, a visible demonstration of our commitment to global climate leadership.

In addition, the Government wants to make the UK a global leader in the development, production and use of sustainable aviation fuels (SAF). On top of carbon savings, the development of a domestic industry to produce SAF has the potential to create around 60,000 jobs by 2050 and £10bn of Gross Value Added per annum. This is why the Government will be introducing a mandate requiring that at least 10% of jet fuel is sourced from sustainable sources by 2030. The second consultation on the mandate has just closed and the Department will publish the Government's formal response later this year.

Regarding the Committee's concerns on private sector investment into technologies for decarbonisation, Government and industry have jointly committed more than £1.4 billion in the R&D for emerging vehicle technologies via the Advanced Propulsion Centre (APC), strengthening the UK's long-term competitiveness as it transitions to net zero. The Automotive Transformation Fund (ATF) also aims to support the creation of an internationally competitive electric vehicle supply chain in the UK. Both programmes continue to support the development and commercialisation of cutting-edge automotive technologies. In the coming months, after engagement with industry, the Government will build on these interventions to take decisive action to ensure future investment in zero emission vehicle manufacturing.

Your letter's specific questions are addressed below:

How the Government plans to ensure reduced emissions from the large number of legacy petrol and diesel-powered vehicles that will remain on the road following the 2030 and 2035 bans on the sale of new petrol and diesel cars and vans.

In response to recommendations 4, and the grouped response to recommendations 2,5 and 6, the Government is clear on the need to reduce emissions from road vehicles using conventional internal combustion engines. The primary mechanism for delivering reductions in greenhouse gas emissions (GHG) through the supply of renewable fuels for use in these vehicles is the Renewable Transport Fuel Obligation (RTFO) certificate trading scheme. In 2021, renewable fuel supplied under the RTFO scheme saved just over 5 million tonnes of CO₂ emissions in 2021 and achieved an average GHG saving of 83% compared to fossil fuels they replace.

The RTFO scheme is well established and respected. Since 2008 it has set targets for the supply of renewable fuels in transport, and required minimum GHG reduction thresholds as part of strict sustainability criteria which low carbon fuels must meet. There are no plans to phase out supply of liquid fuels

to vehicles requiring traditional liquid fuels, and there are no plans for RTFO support to be discontinued. The Government has increased RTFO targets for the proportion of low carbon fuel supplied to transport, which will further decarbonise the fuels used in legacy internal combustion engines. Suppliers of synthetic fuels and other advanced fuels are eligible for support under the RTFO scheme, which also directs future investments by providing additional rewards for development fuels. Development fuels are made from sustainable wastes or renewable energy and include fuels such as aviation fuels, most drop-in alternatives to fossil petrol and diesel, and renewable hydrogen.

Low carbon fuels that can be deployed in road vehicles will continue to play an important role in decarbonising transport. Accordingly, the Government will publish a strategy later this year to set out its vision for the deployment of low carbon fuels across transport modes up to 2050 which will support future private investment. However, it should be recognised that there are barriers relating to some liquid fuel options. Synthetic fuels can be expensive and energy intensive to manufacture. Additionally, drop-in sustainable fuels do not compare favourably with electric vehicles when considering air quality pollutants. This is why low carbon fuel technologies in the longer term are seen as having an increasingly important role in the decarbonisation of transport sectors where there are limited alternatives to liquid or gaseous fuels, such as aviation and maritime. While the Government's approach to delivering ambitions for greener transport is technology neutral, it is not outcome neutral, the end goal is net zero emissions.

Affordability as a barrier to the widespread take up of electric vehicles.

The Government wants to ensure that all drivers, whatever their income, will be able to benefit from the transition to electric vehicles. The Plug in Car Grant was in place for over a decade and successfully supported early market growth of the electric car market. Over its lifetime, the plug-in car grant provided over £1.4 billion toward electric vehicle uptake. In 2022, over 1 in every 5 cars sold had a plug. It's clear that the public continues to realise the benefits of switching to electric cars. Government grants are continuing to support the uptake of harder to transition vehicles such as vans and wheelchair accessible vehicles.

The price of electric vehicles continues to fall, with some on the used market now similar in price to their petrol and diesel equivalents. The majority of drivers in the UK buy their car on the second-hand market so this will be an important source of affordable EVs. In the first quarter of 2023, compared with the same period in 2022, used battery electric vehicle transactions have risen by 57%. This growth is expected to continue with over 267,000 fully electric vehicles sold in 2022, likely to come into the used car market over the next three to four years, providing the used electric car market with far more choice for motorists [SMMT data].

Electric vehicles generally cost less to maintain due to fewer moving parts than their petrol or diesel equivalents and are currently exempt from Vehicle Excise Duty (VED). From 2025, EVs will start paying VED but will still have preferential first year rates of VED in comparison to the most polluting vehicles. As the sale of these vehicles continues to soar, it is right to start normalising the tax treatment of these vehicles. While the Government recognises that the price of public charging is generally higher than domestic charging, most electric car drivers charge at home overnight where they can access cheaper, more flexible tariffs – a trend the Government expects will continue. Charging a medium-sized electric car at home, at rates equivalent to the electricity price cap, equates to around half the cost of filling up an equivalent petrol vehicle. Some suppliers continue to offer tariffs enabling drivers to run their electric vehicles at under 3p per mile.

Battery costs are likely to have the biggest impact on the future affordability of electric vehicles. According to a report by Faraday Institution (2019), the cost of the battery represents up to 40% of the upfront cost of an electric vehicle. According to BloombergNEF, battery costs have fallen by around 90% since 2010 and are expected to continue to decrease. The Government is supporting the continued development of battery technology through the Faraday Battery Challenge as described, including the efficient use of resource and effective recycling. The Government has also announced up to £1 billion of funding, through the Automotive Transformation Fund, to develop UK supply chains for the large-scale production of electric vehicles and further R&D. It will accelerate mass production of key technologies in the UK through major investments, including in the manufacturing of batteries, along with their component and materials supply chains.

To conclude, I thank the committee for their report and the continued focus on my Department's work. The Government's approach to decarbonising transport will tackle climate change and improve air quality and help to deliver a transport system for everyone.

Yours ever,

A handwritten signature in black ink, appearing to read 'Mark Harper', with a stylized flourish at the end.

The Rt Hon Mark Harper MP

SECRETARY OF STATE FOR TRANSPORT