

Written evidence submitted by Honda Motor Europe (EVP0014)

Introduction:

1. Honda welcomes the opportunity to share our views on how to accelerate the shift to zero emissions vehicles in the UK. Honda supports the UK Government's ambitions to achieve net-zero by 2050 and to decarbonise the transport sector. We are committed to playing a significant role in tackling the climate emergency by developing and bringing to market innovative new products and services.
2. In our view, an approach that makes use of a range of technologies – including battery electric, advanced hybrid, e-fuels and hydrogen – will deliver rapid reduction in transport emissions while ensuring that personal mobility remains accessible and affordable to everyone, no matter where they live in the UK. This is key to making sure that customers – in a free market economy – make an active choice to move into low and zero emissions mobility.
3. We are pleased to see that Government has recognised the important contribution to decarbonisation made by hybrid technology. Honda's advanced hybrid technology already delivers a significant percentage of miles driven in zero emissions mode – and will continue to provide additional CO₂ reduction as the technology continues to evolve in the coming years.
4. We look forward to working with Government and Parliamentarians on developing effective strategies to ensure that UK consumers can continue to access a range of electrified and zero emission technologies up to 2030 and beyond.

About Honda in the UK:

5. Honda is a leading global producer of cars, motorcycles and power products. The UK is Honda's largest European market by value, leading European sales of cars, motorcycles and power products. Our UK footprint also includes an R&D operation, a Formula 1 facility and our European head office.
6. The UK is also a key pillar of Honda's accelerated Electric Vision strategy, which will see all Honda's European mainstream models electrified by 2022, three years earlier than previously planned. This will include a range of technologies, including battery electric and both full and plug-in hybrid. The UK is also a leading market for Honda's new energy management business, with significant investment in both EV charging infrastructure and energy management systems. The UK will also be the launch market for the world's first flexible energy contract specifically tailored for electric vehicle owners.

Honda's Electric Vision and net-zero commitment

7. As a company aware of its responsibility to society, now and in the future, we are working diligently to reduce all environmental impacts from our products and business activities. Through our technologies and business operations, we aim to contribute to a society that has zero impact on the environment, with the UK and Europe at the forefront of this effort.
8. In 2019, we pledged that 100% of our mainstream European car sales would feature an electrified power train by 2022. In addition to Battery Electric Vehicles (BEV), advanced hybrid technology will play an increasingly important role in our future line-up. Late last year, Honda's CEO Mr Hachigo further announced that we would strive towards the realization of carbon neutrality – across all parts of our worldwide operations - by 2050, in line with the Paris Climate Agreement.
9. We are therefore committed to playing a significant role in supporting the UK Government to achieve its decarbonisation targets by developing and bringing to market innovative new products and services. This includes the launch of 6 electrified vehicles – both battery electric and advanced hybrid – to the UK market in the coming years. In 2021 we will also launch e:Progress, an innovative service that will allow electric vehicle drivers to benefit from smart charging using renewable energy, and in time, to feed electricity back into the grid. The UK's liberal energy market has enabled us to select this country as the launch market for this investment in energy management and intelligent charging infrastructure.

A multi-pathway approach is the most effective way to accelerate the shift to zero emissions vehicles

10. Our assessment is that the best way to achieve net zero mobility is to pursue a **multi-pathway approach**, making use of a range of technologies and energy sources. Following this approach will deliver CO₂ reductions more quickly and more effectively than an approach that relies solely on one technology.
11. Honda's multi pathway approach is based on the concept of the “the right vehicle, in the right place, for the right use, using the right energy carrier,” and foresees a role for both battery electric and advanced hybrid technologies, as well as a range of renewable energy sources and fuels.
12. The current Government strategy prioritises the take up of pure battery electric vehicles (BEVs) but loses sight of the role that other technologies can play in reducing transport emissions. In our view, Battery Electric Vehicles do have an important role to play and indeed BEVs will be a key plank of Honda's Electric Vision. The Honda e, a Battery Electric Vehicle, developed specifically for the European market, was launched in the UK earlier this year, with a second full electric model to follow, joining four hybrid models to complete our fully electrified line-up.
13. BEVs do provide a significant number of benefits to consumers, such as enabling zero emissions driving over short distances or within urban environments, while providing an excellent driving experience. However, we recognise that BEVs are not best suited

for every use case and every user – for instance, pure electric vehicles are not best suited for towing. Challenges around affordability, infrastructure and consumer acceptance mean that Government cannot rely on BEVs being able to completely replace internal combustion engines by 2035 on their own.

14. This is why advanced hybrid technology, which is still developing rapidly, will play an essential role in meeting UK climate action targets by delivering significant CO₂ reductions in both the short and longer term while also addressing infrastructure and affordability concerns of many British car users. We were pleased to see Government acknowledge this by announcing that the continued sale of new full hybrids that deliver significant zero emissions miles will be allowed to continue to 2035.
15. By combining compact, efficient, specially designed petrol engines with battery power, Honda's advanced hybrid technology provides the power and performance that customers need to meet a wide range of needs, while delivering significant CO₂ reductions, and ensuring that customers feel confident in moving into low emissions mobility.
16. Our advanced hybrid products on the market now, are already making a real contribution to CO₂ reductions. Our new Jazz Hybrid emits 30 per cent less CO₂ than its non-hybrid predecessor, while on road testing shows that in urban environments, the Jazz operates in electric only mode 63% of the time – without the need to plug in and charge a battery.
17. Thus, when defining which hybrid technology will be allowed after 2030, the Government needs to use a metric that goes beyond a simplistic “X consecutive miles in zero emissions mode,” but rather measures the overall zero emissions driving over a typical UK journey. We would suggest a metric based on the percentage of time spent in pure electric mode in WLTP phase 1 and/or 2 would provide the following benefits:
 - a. Would enable the continued use of the full range of FHEV technologies that can effectively and reliably reduce transport CO₂ emissions up to 2035.
 - b. Can be set at a sufficiently challenging level to ensure that only the most advanced hybrids (with or without plugs) can be brought to market.
 - c. Avoids allowing use of technologies that do not deliver significant CO₂ reductions across whole drive cycle.
 - d. Is based on information that can easily be made available by OEMs or calculated on the basis of available data.

A multi-pathway approach must have a role for synthetic fuels

18. Even in a scenario in which electrification is rigorously pursued, there will still be a role for liquid fuels, whether to power the ICE component of hybrid vehicles, or to fuel the legacy ICE vehicles still in the fleet. The development of decarbonised liquid fuels – also referred to as low-carbon liquid fuels (LCLF) - will both further enhance CO₂ performance of hybrid vehicles as well as providing a route to decarbonising the existing ICE fleet, without the need for additional energy distribution infrastructure.

19. Low-carbon liquid fuels are sustainable liquid fuels from non-petroleum origin, with no or very limited net CO₂ emissions during their production and use compared to fossil-based fuels. LCLF produced from renewable energy sources such as biomass, renewables, waste and captured CO₂ will be close to zero CO₂ content.
20. LCLF can provide several significant benefits:
 - a. Reduce the carbon impact of conventional ICE and hybrid vehicles, without costly retrofitting
 - b. Make use of existing fuelling infrastructure.
 - c. Enable the decarbonisation of sectors where no other technological alternatives currently exist – LCLF could play a vital role in helping the government’s “Jet Zero” objective of developing a carbon neutral long-haul passenger aircraft.
 - d. Give customers a choice between low carbon technologies.
 - e. Provide an effective mechanism to manage the legacy ICE fleet.
21. While LCLF will not require new distribution infrastructure, Government support will be required for the scaling up of production of this new energy source. With the right government support, the UK could position itself as a world leader in the generation and use of renewable liquid fuels. Without support, and with a battery electric only strategy, there will be no sector

Actions required to reach zero emissions mobility

22. Manufacturers like Honda are playing their part by developing products that contribute to the decarbonisation of mobility. However, there are several additional challenges to the increased take up of low emissions vehicles. Government has a key role to play in addressing these challenges by helping to move the market and ensuring the right infrastructure is in place to support increased electrification and overcome consumer hesitancy.
 - a. **Take a technology neutral approach:** An approach to reducing transport emissions that is based on bans or mandates for specific technologies is risky, as it depends on anticipating and relying on evolving technology breakthroughs or missing out on new technologies that may be just over the horizon. It also puts at risk the sustainability of existing technologies – such as hybrid – that are playing a key role in delivering emissions reductions.
 - b. **Invest in infrastructure:** Consumers still have range anxiety. To overcome this, government needs to drive investment in charging infrastructure across the country, and to ensure that provision for widely accessible on and off street charging is in place. Investment in infrastructure must also take into account the need to invest in the grid – both at national and local level – to ensure it can deal with demand placed on it at peak times.
 - c. **Getting tax and incentives right:** BEVs continue to be more expensive than conventionally powered models, and while prices are coming down research

by the Faraday institute show that price parity across all types will not be reached until after 2035. Putting in place effective measures – such as maintaining a consistent and meaningful plug in car grant – will help consumers overcome the price barrier. And we can look to Norway, where tax breaks have been combined with incentives – such as the ability to use bus lanes – to great effect. Slashing vehicle excise duty on electrified vehicles will also help to drive up demand. But perhaps most importantly, any incentives and tax measures must be consistent over time, so that consumers can be confident about the benefits they will have over the lifetime of the vehicle.

- d. **Price of energy:** Society also needs to make sure that the price of electricity is right. For mass take up, charging needs to be cheaper than filling up with petrol or diesel. Government can use levers such as taxation and competition law to ensure electricity prices remain competitive, while industry is bringing various technologies – such as Honda’s partnership with Moixa – to deliver smart and bi-directional charging to the benefit of customers.

- e. **Support e-fuel innovations:** e-fuels have a significant role to play in decarbonising transport. While they do not require new distribution networks, Government support will be required in scaling up the production of these fuels.

- f. **Pursue an open trade policy:** The reality of the market is no one player can drive this transition on their own, and no one country can achieve zero emissions mobility on its own. Meeting this challenge means leveraging global technologies and global supply chains – while there are opportunities for the UK, we must not take a protectionist approach to the challenge.

Road Pricing

- 23. Honda is not positioned to give detailed evidence on the effectiveness of road pricing schemes. However, we would urge that such schemes must be designed in such a way that they do not undermine the economic case for purchasing an EV.

- 24. The upfront costs of purchasing a new EV will remain high for some time, but the running costs tend to be lower thanks to lower fuel, VED and maintenance costs. Any move to replace VED with road charging, or to introduce road charging on top of VED, could wipe out these benefits and increase the overall cost of ownership – which will limit the take up of new EVs and have disproportionate impacts on the less well off who rely on access to personal mobility.

Conclusion

- 25. Protecting the environment is at the heart of Honda’s company philosophy, and we are acting on these principles by making ambitious commitments on climate action.

By 2050, we have committed to net-zero across our global operations, while in Europe all our mainstream car sales will be electrified by 2022.

26. We therefore support the Government's ambitions to accelerate the shift to zero emissions vehicles, but call for an approach that ensures all technologies can play their role, and avoid overreliance on battery electric vehicles.
27. In the final analysis, in a free market economy, the success of the shift to low or zero emissions mobility will be determined by whether customers choose to buy such vehicles. Thus, while manufacturers are playing their part by delivering low and zero emissions vehicles, government must act to put in place the right enabling conditions – such as charging infrastructure – and the right tax and incentives packages to help move the market and build consumer confidence.

February 2021