Committee on Climate Change

Independent advice to government on building a low-carbon economy and preparing for climate change

The Right Honourable Rishi Sunak MP
The Right Honourable Grant Shapps MP
The Right Honourable Alok Sharma MP

27 August 2020

Dear Chancellor,

Please see the attached response to your consultation on reforms to Vehicle Excise Duty. We see these changes as a vital step forward in tackling greenhouse gas emissions from surface transport, now the biggest single sectoral source in the UK.

I would draw your attention to the worrying recent trend towards sales of larger, SUV models of car. The increased demand for these heavier, more fuel-hungry vehicles is offsetting the fuel efficiency gains we are seeing from technological improvements. I hope this will be prominent in your thinking.

I trust your VED reforms will be integral to the new Transport Decarbonisation Plan. I am copying this letter to the Transport and Business Secretaries.

Yours sincerely,

Lord Deben

Chairman, Committee on Climate Change

This letter provides my Committee's views on your consultation on the future of Vehicle Excise Duty (VED), which is an important lever for supporting decarbonisation of UK transport.

We welcome the proposal to vary rates of VED with every gCO_2 to avoid the cliff-edges in the present system. However, we recommend that you set significantly larger differentials between the cleanest and most polluting vehicles.

Surface transport is now the largest greenhouse gas (GHG) emitting sector, accounting for 24% of all UK GHG emissions in 2019. There has been little change in the level of surface transport emissions since 2008. Indeed, in more recent years a resurgence in the consumer preference for larger vehicles has offset efficiency improvements. Change is urgently needed, emissions from surface transport must fall rapidly to meet the UK's legally-binding fourth and fifth carbon budgets; they must reduce to close to zero by 2050 to meet the UK's Net Zero target.

The reform of VED has an important role in the transition to Net Zero, while maintaining revenues for the Exchequer. The proposals you have set out can help to shift the market. The changes should be designed to drive further improvements in vehicle fuel efficiency, provide a strong signal to purchasers, and encourage a more rapid transition from petrol and diesel vehicles to ULEVs. Changes to VED should also have an enduring effect beyond the first year to send a stronger price signal to fleet buyers and the second-hand market. The changes in VED should:

- **Provide strong incentives to manufacturers to continue to improve efficiency and to consumers to buy vehicles with lower emissions**.
    - The proposals to make VED a system whereby rates vary with every gCO_2 will help to avoid cliff-edges and incentivise manufacturers to make continuous improvements across all vehicles.
    - Larger differentials are needed across all vehicle types. Current rates, with the differential between the lowest and highest emitting cars at only just over £2,000, are doing little to tackle the move towards higher emitting vehicles. Average CO_2 emissions of new cars *increased* in 2017, 2018 and 2019, driven by the rapid increase in purchases of SUVs, whose market share has risen from 7% in 2007, to 25% in 2019. Countries with more steeply graduated systems (e.g. France, Sweden and the Netherlands) have been much more effective in reducing emissions (see Annex for details).
- **Align other policy instruments to ensure a coherent framework for the rapid transition to ULEVs.**
    - Meeting ambitious climate targets requires support to purchase ultra-low emission vehicles (ULEVs). A mix of regulation and incentives is needed for manufacturers to supply them along with good access to charging infrastructure to reassure drivers.
    - Continuing financial support for ULEVs is needed in the 2020s until they become cost-competitive with conventional vehicles. Although EV market share has increased in recent years it was just 3.2% in 2019.
    - The current plug-in car and van grants, along with Company Car Tax (CCT), provide the main source of support for EVs. As grants are reduced, VED and fuel duty must

ensure that ULEVs remain financially attractive for consumers. Providing a clear pathway for future rates would increase certainty for both consumers and industry.

- Supply issues also need to be addressed. More stringent targets for new car CO_2 and a zero emission vehicle mandate from now to my Committee's recommended switchover date for ending the sales of petrol and diesel vehicles by 2032 will provide the necessary impetus for manufacturers to improve the availability of EVs and actively sell them in the UK.

- **Support lower emitting vehicles after first year VED.**
  - Evidence[1] suggests that purchasing decisions are affected more by taxes at the point of purchase than on-going annual rates due to consumers highly discounting future costs. We therefore support your focus on differentials at purchase.
  - However, fleet buyers, representing over half of new car sales, are more likely to focus on lifetime costs and take account of VED rates in subsequent years. For all cars other than battery electric vehicles, VED rates for the second year onwards are barely differentiated by emissions, for example with plug-in hybrids, regardless of range, being charged only £10 less a year than sports cars and SUVs.
  - Ongoing rates also affect the second-hand market. Higher differentials are likely to mean more favourable depreciation rates and longer lifetimes for lower band vehicles. Equity considerations also need to be addressed given the poorest households mostly buy second-hand cars.[2] The VED reforms should consider these impacts and ensure the design of second and subsequent year rates encourages the purchase of lower emitting vehicles and longer lifetimes for those vehicles.

[1] See for example Gerlach et al 2018 *'Fiscal policies and CO2 from new passenger cars in the EU'* https://research.tilburguniversity.edu/en/publications/fiscal-policy-and-co2-emissions-of-new-passenger-cars-in-the-eu

[2] Green Alliance 2019 *'Going Electric: How everyone can benefit sooner'* https://www.green-alliance.org.uk/resources/going_electric_how_everyone_can_benefit_sooner.pdf

Annex

This Annex sets out additional data and analyses in three areas:

1. **Provide an incentive to manufacturers to improve efficiency continually and to consumers to buy vehicles with lower emissions**.

   Vehicle taxation can strongly influence vehicle purchase decisions. Compared with other European countries, the UK offers comparatively fewer tax benefits for low- compared with high-emission vehicles (Figure A1). Differentials are greater in France, particularly for cars over 120g/km, whilst the Netherlands and Norway have the steepest tax curve.

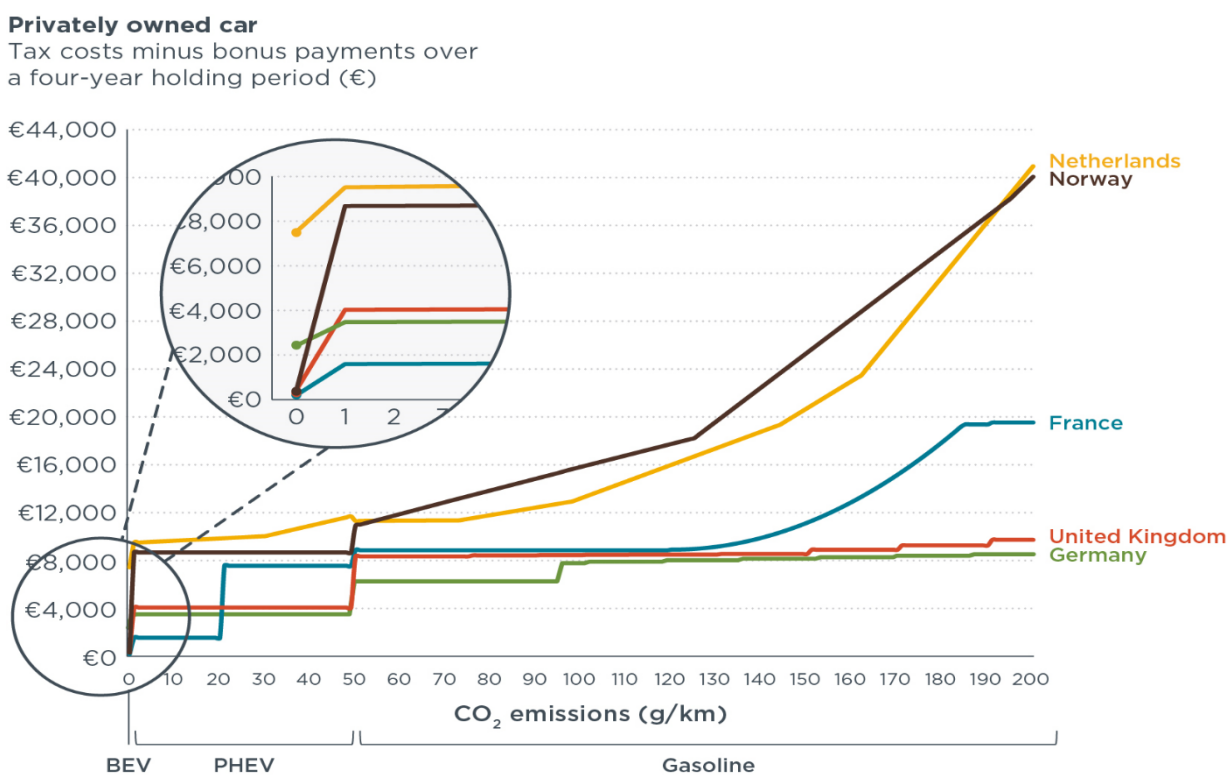
   These policies have helped reduce new car CO_2 in the Netherlands which has one of the fastest rates of decrease in the EU; in 2008 it was ranked 18th, in 2019 it was first. Research[3] suggests that the 2009/10 Dutch reforms led to a big increase in sales of the lowest, tax-free, car bands, with a strong correlation between sales and tax changes. In contrast, the UK was ranked 11th in 2011 but slipped to 18th by 2019. Germany has one of the highest average new car CO2, ranked 21st in 2019.

   A 2017 study[4] explored the causes for differences in the average CO_2 emissions intensity of the new passenger cars across the EU. It found that countries with CO_2-differentiated vehicle taxes were more likely to have achieved greater reductions in emissions, but that there was scope for vehicle tax policies to drive emissions reduction further. In countries with the highest success rate, the design of the vehicle tax, as part of a well-aligned policy package, has been very important in delivering the biggest reductions in CO_2 emissions from new cars.

[3] Kok (2011) '*The effects of CO2-differentiated vehicle tax systems on car choice, CO2 emissions and tax revenues*'

[4] Denis Dineen, Lisa Ryan & Brian Ó Gallachóir (2017) '*Vehicle tax policies and new passenger car CO2 performance in EU member states*' Climate Policy, DOI: 10.1080/14693062.2017.1294044

Figure A1: Tax liability of a privately owned car in 2018.



Source: ICCT 2018 'Using vehicle taxation policy lower transport emissions' https://theicct.org/sites/default/files/publications/EU_vehicle_taxation_Report_20181214_0.pdf
Notes: Based on four-year discounted costs.

2. New car CO_2

New car CO_2 reduced by nearly 5gCO_2/km per year between 2007-2016. Since then it has risen for three consecutive years, by 0.7% in 2017, 2.9% in 2018 and 2.7% in 2019. The recent rise has been due to the shift towards higher emitting vehicles, partly offset by a modest increase in take-up of EVs. The impact of the switch away from diesel towards petrol cars has been small (Table A1.1):

- 90-100% of the increase in conventional car emissions is due to a shift towards higher emitting vehicles, notably SUVs.
- The share of petrol cars increased from 56% of new conventional car sales in 2017 to 71% in 2019. This explains around 10% of the rise in new car CO_2 in 2017, as average diesel emissions were lower than for petrol cars. By 2019 this reversed, with CO_2 from new petrol cars actually lower than that for new diesel.
- Take-up of EVs has risen from 1.9% of cars sold in 2017 to 3.2% in 2019. This has dampened the impact of the rise in average emissions from conventional cars.

Table A1.1. New car CO_2 2017-2019			
	2017	**2018**	**2019**
Overall new car CO_2 (gCO2 /km)	121.1	124.5	127.9
Change from previous year (g CO_2 /km)	0.91	3.47	3.36
Change (gCO_2/km) due to:			
EV uptake	-0.85	-0.90	-1.53
Switch to petrol cars	0.19	0.31	-0.03
Increase in ICE car size and emissions	1.57	4.06	4.92
Source: CCC calculations based on SMMT data.			

3. Growth of SUVs

The rise in new car CO_2 is linked with a rising market share of SUVs. Whilst the share of the lowest emitting cars, minis and superminis, declined by 2 percentage points between 2016 and 2018, the share of SUVs rose from 16% to 24%. Evidence suggests there are several factors involved in this increase: changing preferences, greater availability of finance and supply and marketing by manufacturers:

- **Changing preferences**. Car buyers often prioritise price and capability in their purchase decisions, but also take account of other attributes such as brand, performance, running costs and size. The popularity of SUVs can to some extent be attributed a preference towards greater seating and cargo capacity, safety (though this is more perceived than real as SUVs are easier to topple over due to their higher seating), and their off-road and winter driving capability.
- **The availability of finance.** Lending through financial products, particularly Personal Contract Purchases (PCPs), to purchase cars has more than doubled over the last decade, from £20-25bn in 2012 to £45-50bn in 2019.[5] In 2019, 90% of all new cars were purchased using financing products, with PCPs accounting for over 75% of these. A move to these financing options could have contributed to the increase in sales of higher emitting, higher cost cars:
  - By charging a monthly fee, it makes the higher up-front cost less visible, and reduces the impact of VED.
  - They make SUVs more affordable to a wider range of consumer.

[5] Finance and Leasing Association, 2019

- **Supply and marketing**. Manufacturers producing a wider range of models and higher advertising have been key drivers behind the growth of SUVs:
  - Modern SUVs were first introduced in the late 1980s, but sales didn't start to accelerate globally and in the UK until the late 2000s. In 2010 there were 35 million SUVs in operation globally; in 2019 there were 200 million. Nearly all manufacturers now have their own SUV range, from premium (Maserati, Lexus) to mass-market (Hyundai, Opel, Peugeot). UK sales have more than tripled in just over a decade, from 176 thousand in 2007 to 562 thousand in 2019.
  - Recent OEM advertising spending has shifted significantly towards this brand. In 2016 Ford spent 50% of its advertising budget on SUVs; by 2019 it had risen to 85%.[6] As the market becomes more competitive, overall advertising has increased as rival brands need to match advertising to maintain market share.

[6] http://www.insideradio.com/free/ford-ad-spend-predicted-company-s-shift-away-from-cars/article_69c0c832-e65a-11e8-a609-5b56473df19e.html