



Piers Forster
Interim Chair, Climate Change Committee
7 Holbein Place
London SW1W 8NR

11 July 2023

Sent by email to private.office@theccc.org.uk

Dear Professor Forster,

Recommendation R2022-301: VAT on public charging

We are writing to express our concern at the recommendation (R2022-301) in the CCC's 2023 Progress Report to Parliament that VAT on public charging of electric vehicles (EVs) should be reduced. We believe the preponderance of evidence is that the benefit of such a reduction would not be passed to consumers. The proposal therefore reflects poor value for money, particularly in the context of the extensive government expenditure which climate change is likely to require.

The proposal appears to originate in a 2021 study prepared by Transport and Environment.¹ This says:

There is also an inequality between EV drivers charging at home with a 5% domestic VAT rate and the 20% charged for using a public charger. Charging a lower VAT rate for public charging would lower the additional costs of charging for, typically less affluent EV owners that park on the road.

No analysis or authority is given for the proposition that reducing the VAT rate would lower charging costs, and it appears to be simply an assumption. There are good reasons to believe that assumption is false:

¹ Transport & Environment, *Charging Forward: Creating a world-class UK charging network* (May 2021)

- a) The common intuition that a reduction in a producer's cost (like VAT) will result in the producer lowering its prices is incorrect.² In a market economy, economic actors charge what the market will bear. Hence, in principle, there is no reason to assume that prices will reflect the level of VAT; each case must be looked at on its own facts.
- b) A detailed analysis of historic changes in VAT rates has demonstrated that the degree to which changes in VAT rates are "passed-through" to consumers is strongly related to the percentage of overall consumption (the "consumption share") that is affected by the change. There is no significant pass through when the consumption share is less than 10%.³ When, as here, a VAT cut is targeted on one specific product or service, the consumption share will be much less than 10%. Furthermore, pass through is much lower for VAT cuts than it is for VAT increases.⁴ We should therefore not expect significant pass through of VAT cuts on public EV charging.
- c) VAT pass through effects are particularly limited where markets are not competitive.⁵ The specific economics of public charging suggest that is the case here. The RAC has found that the average price of public charging is 70.32p/kWh.⁶ Typical consumer pricing is 52p/kWh (before the price cap).⁷ Public charging, therefore, does not compete on price with domestic charging (which accords with intuition: someone will only use a public charger if they cannot charge at home). And, at any given location, there is limited competition between different charging companies.⁸ Public charging companies do not, therefore, significantly compete with one another. Hence this particular VAT cut is likely to result in even lower pass through than would normally be the case for a VAT reduction impacting a low consumption share product.
- d) The report prepared for the CCC by Ricardo Energy & Environment⁹ recommended that chargepoint operators should "Allow any potential savings from reduced VAT rates from electricity for public charging to be passed onto the consumer, and not taken as additional profit". I am afraid we regard that as naïve - in a free market, it is not realistic to expect market participants to charge less than the market will bear. That is supported by recent evidence. There were two recent VAT cuts resulting from high profile campaigns, and where industry pledged that consumers would benefit: the May 2020 abolition of VAT on ebooks, and the January 2021 abolition of VAT on tampons. Tax Policy Associates has used ONS data to assess the actual impact on prices, and found a result consistent with the literature referenced above: all or almost all the benefit was retained by suppliers.¹⁰

² de la Feria, Rita and Walpole, Michael, *The Impact of Public Perceptions on General Consumption Taxes* (December 4, 2020). (2020) British Tax Review 67/5, 637-669

³ Benedek, de Mooij and Wingender, *Estimating VAT Pass Through*, IMF Working Paper No. 2015/214 - and see page 23 in particular.

⁴ Benzorty, Carloni, Harju and Kosonen, *What Goes Up May Not Come Down: Asymmetric Incidence of Value-Added Taxes*, (2018) NBER Working Paper 23849.

⁵ Carbonnier, *Who pays sales taxes? Evidence from French VAT reforms, 1987–1999* (2007) 91 Journal of Public Economics 1219.

⁶ See <https://www.rac.co.uk/drive/news/electric-vehicles-news/cost-of-rapid-charging-an-electric-car-up-50-in-eight-months>

⁷ See <https://energyguide.org.uk/average-cost-electricity-kwh-uk/>

⁸ Discussed in detail in Competition & Markets Authority case 51050

⁹ Ricardo Energy & Environment, *Final report: understanding the costs and impacts of potential approaches to providing electric vehicle charging for households without private off-street parking*, JJ2/1121

¹⁰ Published by Tax Policy Associates Ltd, 2022 and 2023, at <https://taxpolicy.org.uk/tampontax> and <https://taxpolicy.org.uk/ebooks>

For all these reasons, we believe a VAT cut in public EV charging is unlikely to be passed through to consumers in its entirety.

Even if (contrary to our expectation), a VAT cut was passed to consumers, it would still in our opinion represent poor value for money, as there would be a deadweight cost. The policy intention is presumably to incentivise additional motorists to migrate to electric vehicles (EVs), thus increasing EV take-up. We are not aware of any attempt to quantify this effect, but it would likely be small, given that the cost of charging is insignificant compared to the up-front cost of electric vehicle purchases. Furthermore, even at its projected peak, only 30% of charging events will be at public chargers.¹¹ The vast majority of any consumer benefit of the VAT cut (if there is one) would therefore go to drivers whose decision to purchase an electric vehicle was not motivated by the VAT cut.

Finally, such limited benefit as there is would disproportionately go to wealthier drivers, given the current demographics of electric vehicle usage.¹² This means that, even assuming the pass through of the VAT cut to consumers, the measure is likely to be regressive. This is not an uncommon effect of VAT cuts.¹³

For these reasons we would respectfully ask you to reconsider recommendation R2022-301.

Yours sincerely,

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cc:

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¹¹ Sperka et al, *Charging for phase-out. Why public chargers won't be a block on EU's combustion car phase-out*, Transport & Environment.

¹² Although home charging is subject to 5% VAT, installation of an e-charging point is subject to standard VAT.

¹³ *de la Feria and Walpole*, see page 644.