

# Supplementary written evidence submitted by Smarter Cambridge Transport

Addenda to written evidence submission EVP0126

*Addendum to Available revenue-raising tools (page 10):*

## Fuel Duty

Increasing fuel duty would affect only drivers of petrol/diesel vehicles. It would provide some additional incentive for people to switch to electric vehicles, but would not address the longer-term problem of the fiscal gap created by people no longer paying fuel duty and VAT on petrol and diesel.

In any case, the government has not increased fuel duty since 2011, when it instituted the Fair Fuel Duty Stabiliser to limit fuel duty rises when the international oil price rises above £45 a barrel.<sup>1</sup> The equity arguments against increasing fuel duty will grow stronger as take-up of EVs accelerates among wealthier and higher-income individuals.

*Addendum to Available revenue-raising tools (page 13):*

## Road pricing

Oregon, USA, has a voluntary mileage-based system, OReGO,<sup>2</sup> which charges 1.8 cents/mile. Owners of petrol/diesel vehicles receive a rebate of State Fuel Tax paid, which can exceed what they pay for the road usage charge. Owners of electric vehicles save on the annual registration fee (\$97), which more than offsets the per-mile charge if they drive less than 5,388 miles/year. For those who drive more, the state argues that participation will ensure Oregon roads are properly maintained, reducing vehicle repair costs:

*If all electric vehicle owners paid a road usage charge, funding for road maintenance would increase, and vehicle costs related to bad roads could be reduced.<sup>3</sup>*

How persuasive people find this argument is currently unclear.

Germany has, since 2005, charged HGVs a mileage-based toll on motorways and, since 2015, all 'A' roads. The toll rates are set by government, under the terms of the German Federal Trunk Road Toll Act, and vary by emissions rating and weight from 0.093 to 0.261 € per km.<sup>4</sup> The scheme is administered by a private company that specialises in road user charging.<sup>5</sup>

*Addendum to Outline Solution Phase 1 (page 18):*

## *Design Vehicle Smart Metering*

Vehicle Smart Meters (VSMs) would be powered by the vehicle's battery and use public data networks to transmit readings securely and reliably. The technology is already well established

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<sup>1</sup> [Chancellor announces support for motorists](#), HM Treasury, June 2012

<sup>2</sup> [Oregon's Road Usage Charge Program](#), Oregon state government

<sup>3</sup> [How do electric vehicle owners benefit by paying a road usage charge?](#) Oregon Department of Transportation

<sup>4</sup> [Table of tariffs for the HGV toll in Germany](#)

<sup>5</sup> [AGES](#)

in the logistics sector, so it would mostly be a matter of developing systems and data standards and processes for the NRUC.

The specification for NRUC-compliance will need to be transparent, widely understood and generally supported by the population. If opponents can depict VSMs as apparatus for “government spying,” it will make their introduction considerably more challenging.

Technical and expert input into the design must be complemented by deliberative democratic techniques, such as citizens’ juries and assemblies. These are designed to be more representative of the general public than focus groups, and yield more informed opinions than polls. Citizens are best placed to consider issues of:

- Social contracts, civil liberties and privacy: What does society gain? Which individuals gain and lose, and how? In what ways will vehicle tracking information be used, verified, stored, anonymised and erased?
- Sequencing: In what order must changes be made to create a coherent narrative and retain people’s trust?
- Public messaging: What is the simplest way to describe and explain the changes to be made?

There should be complete and open reporting of the terms of reference and evidence presented to citizens’ juries and assemblies; and of their conclusions and reasoning. Only the deliberations themselves should be private, to allow for frank discussion and testing of ideas.

### *Pilot Vehicle Smart Meters*

Piloting of Vehicle Smart Meters will allow the designers to test and refine the technical specifications for the meters, communication and back-end systems. It will also enable testing of the modelling of revenues and how charges are distributed across users. The pilot could be run in two phases:

#### **1. Passive implementation**

Pilot participants would have Vehicle Smart Meters installed in their vehicles, but would continue to pay NRUC at the standard fixed rate. This pilot would test the accuracy, integrity, security, reliability and resilience of tracking, communications and back-end systems. It would report to the user the theoretical NRUC rate they might expect to pay, which would be compared with the fixed-rate NRUC to identify divergences. Users may be asked what changes they would consider making if charged at the new rate to start to gauge and forecast effects.

Incentives to take part in trials include:

- Lower car insurance premiums for careful and low-mileage drivers (as already happens).
- No need to submit odometer readings manually.
- No missed readings or resulting penalties.
- Automated billing of bridge, tunnel and motorway tolls.
- More accurate NRUC bills, so no adjustments for under- or overpayments.

#### **2. Full-systems testing**

Once the systems are working reliably, and the initial charging rates set, one or more classes of vehicle owners would be selected to switch over from fixed-rate to variable-rate NRUC. Two

classes of vehicles might be considered for this: HGVs and licensed taxis. In both cases, tracking technology is already in widespread use with clear commercial and social benefits. This approach would avoid the practical difficulties and perceived unfairness of running a pilot in a geographically prescribed area.

### Addendum to *Outline Solution Phase 2* (page 18):

#### *Increase the total revenue from NRUC to exceed that of fuel duty*

If the £3.7 billion/year of fuel-VAT revenue<sup>6</sup> currently returned to businesses were instead used to support public, active and shared transport, it could be transformative. For example, the report by the Campaign for the Protection of Rural England and Transport for Quality of Life estimated that £2.7 billion/year would be enough to support a Swiss-style, comprehensive, integrated bus network for England.<sup>7</sup> The justification for this redirection of money from businesses to investment in transport is that businesses will benefit from:

- reduced congestion, as people shift from driving to other transport modes, leading to reduced costs of delivering goods and service;
- an enlarged pool of potential employees who do not have access to a car;
- a reduced carbon footprint from employees commuting by public transport instead of car.

### Addendum to *Statistics* (page 23)

*Table 2: Summary of transitional tax revenues*

	<b>Personal</b>	<b>Business</b>	<b>Total</b>
<i>Current consumption of petrol and diesel</i>			
Duty paid	£17.42 billion	£9.76 billion	<b>£27.19 billion</b>
VAT paid @ 20%	£6.41 billion	£3.70 billion	<b>£10.11 billion</b>
VAT refunded	£0	- £3.70 billion	<b>- £3.70 billion</b>
<i>Subtotal</i>	<i>£23.83 billion</i>	<i>£9.76 billion</i>	<b><i>£33.60 billion</i></b>
<i>Equivalent consumption of electricity</i>			
Climate Change Levy <sup>8</sup>	£0.70 billion	£0.43 billion	<b>£1.13 billion</b>
VAT paid @ 5% at average standard unit rate	£0.71 billion	£0.43 billion	<b>£1.14 billion</b>
VAT refunded		- £0.43 billion	<b>- £0.43 billion</b>
<i>Subtotal</i>	<i>£1.41 billion</i>	<i>£0.43 billion</i>	<b><i>£1.84 billion</i></b>
<b>Net difference</b>	<b>- £22.42 billion</b>	<b>- £9.33 billion</b>	<b>- £31.76 billion</b>

### Addendum

<sup>6</sup> See Table 2, provided here

<sup>7</sup> [Every village, every hour: a comprehensive bus network for rural England](#) (C Hinchliff and I Taylor, Transport for Quality of Life and CPRE, 2021)

<sup>8</sup> [Climate Change Levy](#) from 1 April 2021

# Illustrative timetable

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Appoint and authorise NRUC collectors	█						
Develop fixed-rate NRUC calculator and API (programmable interface)	█						
Phase out fuel duty and VAT on fuel		█	█	█			
Phase in NRUC based on vehicle weight and mileage		█	█	█	█	█	█
Charge tolls via NRUC		█	█	█	█	█	█
Phase out VAT relief for businesses		█	█	█			
Invest additional revenue from NRUC into public and active transport		█	█	█	█	█	█
Design Vehicle Smart Metering standards with aid of deliberative democracy		█					
Conduct passive pilot of Vehicle Smart Meters with volunteers			█				
Update NRUC calculator and API to show variable and fixed rates				█			
Conduct full-systems pilot of Vehicle Smart Meters with taxis and HGVs				█			
Fit Vehicle Smart Meters in all new cars					█	█	█
Retrofit Vehicle Smart Meters as part of MoT or warranty service					█	█	
Decommission toll infrastructure							█
<i>Charge NRUC on the basis of vehicle weight, mileage, time and location for:</i>							
HGVs					█	█	█
Licensed taxis					█	█	█
MGVs						█	█
Private PSVs						█	█
LGVs							█
Cars							█
Motorcycles							█

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