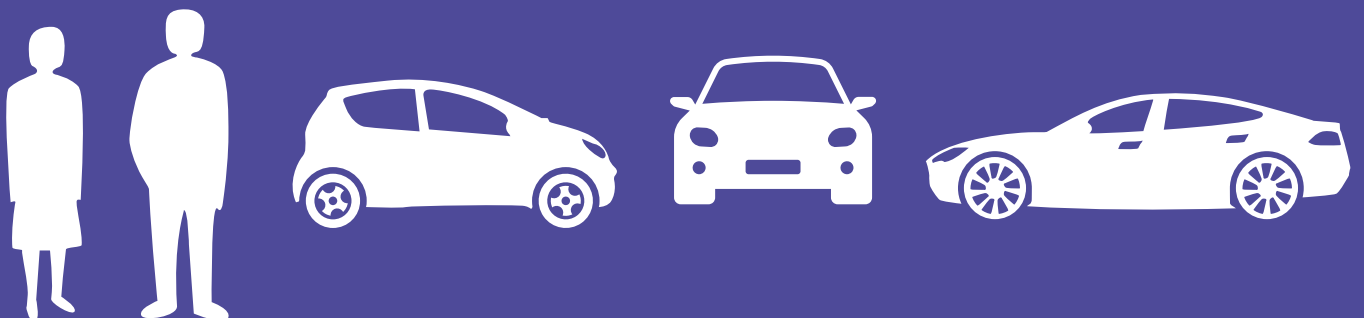


Pay-as-you-drive:

The British public's views on vehicle taxation reform

September 2022



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Foreword

Pay-as-you-drive, or road pricing, is not a new idea. It has been explored in depth many times and is now very much back on the agenda. The motivation in the past was largely congestion and pollution reduction – still very much part of the case for change. But there is now a much more compelling reason which is making the issue more urgent: as petrol and diesel vehicles are replaced by electric ones, the substantial tax the Treasury raises from motoring taxes – around £35 billion a year – is beginning to wither away.

Yet government still refuses to act. Why? Because ministers believe that adopting pay-as-you-drive will be hugely unpopular with motorists. Yet they need have no such fear. This ground-breaking report from Campaign for Better Transport demonstrates very clearly that people are far more open to the idea of pay-as-you-drive than Government recognises.

Pay-as-you-drive puts drivers back in control. If they drive less, they pay less. There could even be a tax-free mileage allowance to help those who drive the least. And with this smarter system, government could give targeted “tax cuts” to specific groups, such as those in very remote rural areas. Motorists are naturally suspicious of change, but it is perfectly possible to make this revenue neutral for the average motorist, with the new pay-as-you-drive charge replacing both fuel duty and VED.

Pay-as-you-drive is not only a good idea. It is becoming a necessity. Government needs to act, and opposition parties need to play a constructive role in return. This report, which shows widespread public support for the concept, should give them all the courage to do so.

Norman Baker,
Director of External Affairs, Campaign for Better Transport, and former transport minister

Executive summary

Increasing the uptake of electric vehicles (EVs) is a vital part of reducing transport emissions. However, as they pay no fuel duty or Vehicle Excise Duty (VED), this will soon lead to a decline in tax revenues.

As the Treasury has stated that taxation raised from motorists needs to be maintained to continue funding public services, the options for reform need to be examined now so that any changes can be implemented in the next few years.

Distance-based road pricing, or pay-as-you-drive, is the option supported by both the independent Climate Change Committee and the cross-party House of Commons Transport Committee. As well as ensuring the tax system keeps pace with the transition to net zero, it presents a number of further benefits, such as addressing issues with the current system of fuel duty and VED and helping to reduce congestion and pollution, while protecting people's right to drive where there is little choice.

Past proposals for different forms of road pricing have met some hostility, making policy-makers reluctant to act, but it is many years since the public mood on this has been tested. This report represents the most in-depth analysis of public views on road pricing in recent years. Based on four focus groups and a detailed 60-question survey of over 3,000 adults from across the UK, it explores the best ways to frame the case for reform and to implement a new system with fairness at its heart.

49%

of Britons believe fuel duty is unfair

60%

agree there is a need to reform the current system of vehicle taxation

49%

support the idea of replacing the current system with pay-as-you-drive

The case for reform

The research found three in five (60 per cent) of Britons polled believe there is a need to reform the current system of vehicle taxation. After various arguments for and against road pricing were discussed, half of survey respondents (49 per cent) supported the idea of replacing the current system of vehicle taxation with pay-as-you-drive, while only 18 per cent thought this was a bad idea. Support for road pricing was eight percentage points higher at the end of the discussion than at the start, showing that many initial concerns can be overcome, when people engage with the arguments and options in order to further increase support.

There are two arguments for reform towards pay-as-you-drive that people find particularly compelling. The first is that the money needs to come from somewhere to prevent the loss of tax income, so EVs should pay tax like all other vehicles. Therefore, framing the need for reform around being fiscally responsible and fairness between internal combustion engine vehicle drivers and EV drivers would resonate with the public.

Secondly, people are attracted to the notion of paying less by driving less, which many are already doing in the context of rising fuel costs. Taking fuel duty out of the price of fuel at the pumps would make that link more obvious and, if a pay-as-you-drive system ensures that the majority of people who drive under 10,000 miles could save money, it could also make their lives easier.



This report is based on four focus groups and a detailed 60-question survey of over 3,000 adults from across the UK

The scheme design options

Our analysis considers three viable options for designing a national pay-as-you-drive system:

- ① A flat per-mile charge for EVs only (while keeping fuel duty and VED as they are for non-electric vehicles)
- ② Replacing fuel duty and VED for all vehicles with a set per-mile charge with the charge level based on vehicle type and emissions (i.e. lower charges for smaller and less polluting vehicles) but regardless of when and where one drives
- ③ Replacing fuel duty and VED for all vehicles with a “smart” per-mile charge that varies depending on vehicle type and emissions, location or type of road, and time of day

Option 1 has the attraction of being simple and addresses directly the gap created by EVs not paying tax. Our research showed 65 per cent of respondents believe it is fair for EV drivers to be taxed but at a lower rate than petrol and diesel drivers so as not to slow down their uptake. An EV-only charge also does not address the lack of transparency and fairness in the current system, so it would not be a good option while a significant proportion of petrol and diesel vehicles remain. Yet an EV-first charge could provide a good starting point to roll out a pay-as-you-drive system for all vehicles.

Option 2 would expand the distance-based charge to all vehicles so that petrol and diesel drivers pay it instead of fuel duty and VED. It would still be a static per-mile charge but it would charge less polluting vehicles a lower per-mile rate. This would encourage a switch to lower-emission vehicles and ensure that EVs are still cheaper to run than petrol or diesel cars. The main downside of a static set charge, however, is that it cannot address the main concern for 63 per cent of less supportive participants that a pay-as-you-drive system would penalise people when public transport options are less available.

Option 3 – a “smart” scheme which varies the charge according to when and where the actual journey takes place – is the best way of making the system fair to people who have no options but to drive. If a journey takes place in more rural areas with fewer public transport options, or on days of the week and at times of the day/night when such options are unavailable, the rates could be much lower. So a fully variable smart road pricing system should be the option to work towards in the longer term.

Its main downside is that it requires vehicle tracking technology (a plug-in device, the vehicle’s in-built telematics or roadside cameras) to account for location and time of day – a key stumbling block in the past – while a static set charge only requires an odometer reading at a vehicle’s MOT. Our research found that, while people disliked the idea of being watched by cameras specifically, loss of privacy was not among people’s top three reasons for considering pay-as-you-drive a bad idea, and both the MOT system and the in-vehicle tracking are equally popular ways to implement the system.

This shows that all three design options are viable and could be different stages of implementation.

Ensuring fairness

The main reason for people opposing the idea of pay-as-you-drive initially was that it would be unfair on people who have no alternative but to drive (63 per cent), so finding suitable mitigations for those who may be disproportionately affected is important to overcome these concerns.

Making public transport cheaper and improving connectivity would not only ensure that more people have access to options other than driving but it would also increase support for road pricing, with 69 per cent choosing it as the top measure to make the system cheaper and fairer for drivers. Affordability is vital to any new scheme. Ensuring that road pricing replaces fuel duty and VED and that it raises no more than they do currently would mean there is no additional burden overall and the majority of drivers could pay less than currently.

Designing mitigations for specific groups is also a key opportunity to support them with high fuel costs – something not possible with the blunt tool of fuel duty. This could take the form of permanent or limited-period exemptions, lower per-mile rates,

or tax-free mileage allowances. However, respondents were divided on which groups (if any) should be offered such mitigations. Approximately half believed disabled people, key workers, people who rely on driving for work, those with no public transport alternatives and people with caring responsibilities should have some form of exemption or reduction. However, some had concerns about how specific groups would be defined and half of respondents thought that exemptions might offer people an opportunity to cheat the system.

On the other hand, the concept of having a certain amount of tax-free mileage allowance appealed to all participants. Those driving less liked the idea of trying to stay within the allowance, so this could be an effective way to help reduce transport emissions and to support people with the rising cost of living. The allowance can be higher for people living in areas with more limited public transport alternatives, thus ensuring fairness for rural drivers who tend to drive more and spend more on transport overall.

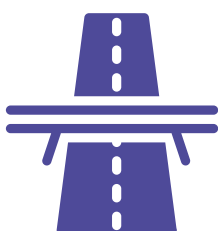
Implementation and integration with local options

When introducing a national road pricing scheme, Government would need to consider how it interacts with any local charging schemes implemented by councils to help reduce local congestion and pollution. We found there is a strong preference (among 62 per cent of respondents) for at least some of the money raised by road pricing to be spent locally but also for integrating local schemes into a single national scheme rather than separate national and local schemes, which would cause confusion.

In practice, local charges enforced by cameras could co-exist with a static emissions-based charge (option 2 above). When a smart fully variable charge (option 3) is introduced, rates would typically be higher in city centres, so any pre-existing local schemes would need to be absorbed into the national scheme to preclude double-charging drivers. In this case, any local top-up rates would need to be applied consistently so discussions between central and local government would be required to determine these rates and how any revenue generated in this way would be shared locally.

69%

would be more supportive
if public transport was made
cheaper and better connected



Our conclusions and recommendations

A national pay-as-you-drive system could progress through three possible (but not all necessary) stages: from a simple EV-first flat per-mile charge, to a static emission-based charge for all vehicles replacing fuel duty and VED alongside a tax-free allowance, to a fully variable smart scheme which also absorbs any pre-existing local charges as an end goal. There are also hybrid options, for example having a smart variable charge while giving people the ability to opt out and pay a set emission-based rate at their annual MOT.

The priorities for vehicle tax reform should be:

- The need to keep up with the transition to zero-emission vehicles as the main rationale
- A focus on pay-as-you-drive, 'drive less – pay less' and helping to tackle the cost of living
- Commitment to raise no more than fuel duty and VED do now
- Ring-fencing a proportion of the revenue for road maintenance and improved public transport
- A tax-free mileage allowance based on postcode with rural drivers receiving more
- Suitable mitigations for disabled drivers, sole traders and businesses
- An arm's length body to set and review emission standards and charging rates annually.

A pay-as-you-drive system could be fairer in a number of ways:

- EV drivers would start contributing towards taxation like other drivers but at a lower rate to sustain the financial case for switching to EVs
- In replacing fuel duty, taxation would be more transparent and it would present a tax cut to petrol and diesel drivers (by not paying VAT on fuel duty)
- A variable rate or tax-free mileage allowance would enable targeted tax cuts to specific groups

- People on lower incomes driving older and less fuel efficient vehicles would pay less per mile
- More affluent people driving larger and more polluting vehicles could pay more
- Those with no public transport alternatives would pay less, either through a higher tax-free allowance or a lower per-mile rate
- Investing revenues in road maintenance would present a direct benefit for drivers and other road users
- Investing in public transport would enable car owners to drive less, reducing congestion for all, and support people on low incomes who cannot afford to own a car.

Our research shows that it is possible to challenge and change inherent negative public perceptions of road pricing, but doing so is a task in itself. While the public are exhausted by challenges in the last few years, a new system designed well can make people's lives easier and help tackle the cost of living.

With the loss of fuel duty becoming problematic imminently, our recommendation is that the Government should establish a commission of MPs and Peers before the next general election to help broker cross-party agreement on the principle need to reform vehicle taxation to keep pace with the transition to net zero. The commission should examine policy options in detail, engage relevant stakeholder groups, and report its recommendations to Government after the next general election. The Government should then consult on the preferred way forward so that a pay-as-you-drive scheme is ready for implementation around the middle of the decade.



1. The need for vehicle taxation reform

Transport is the largest emitting sector in the UK,¹ so reducing carbon emissions from motor vehicles is essential for reaching our net zero target by 2050.



Phasing out petrol and diesel powered vehicles in favour of electric vehicles, which produce no tailpipe emissions, is a vital part of this. The sale of electric and hybrid vehicles is already increasing, with battery electric vehicles comprising 14 per cent of new cars sold so far this year and more battery electric vehicles were sold last year than the previous five years combined.² Electric vehicle use (cars, vans, buses, and lorries) has increased 71 per cent since 2020, representing growth in all sectors.³ To further stimulate the market, the Government has set a 2030 end date for the sale of new petrol and diesel vehicles and a mandate on manufacturers.

One effect of the increasing uptake of electric vehicles is the decline in revenue from vehicle taxation. The main form of vehicle taxation in the UK is fuel duty – a tax “hidden” within the price of fuel paid at the pump. For the last eleven years it has been set at 57.95p per litre for both petrol and diesel and it was reduced by 5p in March 2022. It raises approximately £28 billion per year which is used to pay for public services as part of general taxation.⁴ As drivers of electric vehicles do not use conventional fuel, they do not pay fuel duty. Furthermore, VAT on fuel sales (including fuel duty) is levied at 20 per cent, whereas domestic electricity incurs only five per cent VAT (although electricity through on-street chargers also currently incurs 20 per cent VAT).

Vehicle Excise Duty (VED, also widely referred to as “car tax”) is the second form of vehicle taxation. It is an annual tax on owning a vehicle collected by the Driver and Vehicle Licensing Agency (DVLA). The first year rate is based on emissions, and subsequent years paid at a flat rate of £165 regardless of the vehicle’s emissions. Cars over £40,000 pay a £310 supplement for five years. Rates have generally increased annually in line with inflation but electric vehicles pay no VED. It raises approximately £7 billion per year and, like fuel duty, the proceeds are added to general taxation (despite the Government previously considering it being directly dedicated to roads).

With the transition towards zero-emission vehicles, revenues from vehicle taxation will also decline. The Office for Budget Responsibility forecasts fuel duty revenues peaking in 2024-25 at around £30 billion.⁵ The RAC Foundation estimates that total fuel duty from all cars in the UK would fall by £5 billion by some point between 2028 and 2033,⁶ which makes it a very real problem, especially for the next government.

Faced with the revenue loss, HM Treasury would have a number of options:

- a) It could be replaced with a different form of taxation on drivers, which would require reform of the current system
- b) It could be replaced by increasing other existing taxes like income tax or introducing new taxes on electricity, which would be unfair on non-drivers and has been ruled out by the current Government
- c) It could borrow more, which would be imprudent, given the hundreds of billions already borrowed to pay for Covid and energy bill support
- d) Or spending on public services like hospitals and schools, or road maintenance and transport infrastructure investment would need to reduce.

The Government has admitted vehicle taxation reform is needed. The 2021 Net Zero Strategy states: “We need to ensure that the taxation of motoring keeps pace with the change to electric vehicles to ensure that we can continue to fund the first-class public services and infrastructure that people and families across the UK expect”.⁷ However, there is no clarity yet about how this will happen and in what timeframe.

**Per year, fuel duty
raises approximately**

£28 billion

**Per year, VED
raises approximately**

£7 billion

But there are other reasons why reform of vehicle taxation is needed:

- The current system is not fully transparent, with fuel duty not being separately displayed, but rather hidden within the price at the pump. As a result, many people are unaware of – and overestimate – how much fuel tax comes to, as demonstrated by our research findings, discussed in chapter two.
- The current system can also be unfair. Those with older, more polluting and less fuel efficient vehicles, particularly low-income households, pay more for fuel – and in turn fuel duty – per mile travelled, compared to more wealthy households with newer and more fuel-efficient vehicles. Someone with a newer car could be paying half of what someone with an older car would be.⁸ Cuts to fuel duty also disproportionately benefit wealthier households who tend to own larger cars and drive more.
- At current prices, it costs 10-12p per mile to charge and run a battery electric vehicle, compared to 19-21p per mile for a petrol or diesel vehicle respectively.⁹ Without a tax on electric vehicles, as up-front costs continue to fall and the second hand market continues to develop, the total cost of ownership will become much cheaper than for petrol and diesel vehicles. While these cost savings are one of the biggest economic benefits to the net zero transition, public transport costs would need to fall in tandem, or it risks making driving much more attractive and increasing traffic and congestion levels as a result. The Government's latest available forecasts estimated that if we transition to electric fleets with no change to the tax system, by 2050 road traffic would increase by 51 per cent compared to 2015.¹⁰ Pricing would, of course, need to be balanced against the relative costs of fuel and energy to ensure that the total cost of ownership for EVs remains better than for petrol and diesel vehicles. Another way to do this would be to align the VAT on electricity through on-street chargers with VAT for domestic energy.
- Alongside congestion, air pollution remains a problem at the local level, particularly in densely populated areas with high traffic levels. The latest data shows that more than 97 per cent of UK addresses exceed World Health Organization limits for at least one of three main pollutants (NO₂, PM_{2.5} and PM₁₀), while 70 per cent of addresses breach the limits for all three.¹¹ While electric vehicles produce no tailpipe emissions, like petrol and diesel cars they do produce particulate matter pollution, which is particularly harmful for human health. Indeed, non-exhaust emissions (e.g. from tyres and brakes) account for over 90 per cent of PM₁₀ and 85 per cent of PM_{2.5} emissions from traffic.¹²
- Climate change is now the biggest environmental threat we face. While electric vehicles have a central role to play in reducing climate-altering greenhouse gas emissions through the reduction in tailpipe emissions, they are not the whole solution. Several pieces of recent analysis suggest that achieving our 2030 emission target for transport will require a reduction in the overall amount of vehicle use of around a quarter.¹³
- For many years, public transport fares have risen much faster than the cost of motoring.¹⁴ The Government recognises the need to shift some journeys from cars to public transport, walking and cycling in order to reduce transport emissions. It aims to make the public transport network "convenient, cost-effective and coherent" so that it is the "natural first choice for our daily activities".¹⁵ Reforming vehicle taxation can help rebalance pricing signals and make public transport alternatives more competitively priced compared to driving. Replacing a proportion of trips currently done by car with remote working options, walking, cycling, and public transport, would reduce overall vehicle mileage and the associated costs to society (e.g. road wear, casualties, congestion and pollution).



Current prices per mile
to charge and run
a battery electric vehicle:

10p-12p



Current prices per mile
to run a petrol
or diesel vehicle:

19p-21p



There is widespread agreement among experts and policy-makers, that vehicle taxation reform necessitates some form of distance-based road pricing.¹⁶ That is, charging drivers directly per mile driven, whether a set distance charge or so-called smart road pricing whereby the charge per mile varies on the basis of different factors. Such road pricing – or a pay-as-you-drive system – can be applied equally to all vehicles, or only to certain types of vehicles, or potentially across multiple vehicle types at different levels.

Road pricing has been on the agenda several times in the past, but never progressed, mainly due to initial public opposition leading to political leaders quickly dropping plans and subsequent lack of political will to find a compelling argument to gain public acceptance.¹⁷ The issue is now time-critical, with the declining tax revenue as the main reason for this. A number of organisations and experts advocate different types of road pricing, some focusing on revenue-raising, others on reducing congestion or the environmental benefits.

Most notably, the independent Climate Change Committee's 2022 progress report to Parliament noted road pricing will be "necessary" in the longer-term and recommended Government should start scoping out policy options now, so that a scheme is ready for implementation later this decade.¹⁸ The cross-party House of Commons Transport Select Committee of MPs advocates replacing fuel duty and VED with smart road pricing variable by distance, time of day, vehicle type and size as a way

to plug the hole in vehicle taxation.¹⁹ The think tank Policy Exchange calls for a scheme that varies by real-time congestion and pollution levels on the roads to improve traffic flow.²⁰ The Social Market Foundation proposed a simple scheme with a flat per-mile rate and a free mileage allowance, with a top-up for petrol and diesel vehicles.²¹

The main question in terms of how best to proceed with pay-as-you-drive road pricing is what will be politically and publicly acceptable. Policy-makers could be convinced to explore options, if there is evidence that the public would be on board with a particular system. Yet there has not been a recent detailed study of the public's views of different options. This is the gap this study aims to fill.

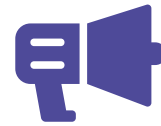
Based on four focus groups with people representative of different attitudinal segments, and a detailed 60-question survey of over 3,000 adults from across the UK, **this research is the most in-depth study of public views on road pricing yet.** It explores the different rationales of road pricing, arguments 'for' and 'against', views on different types of schemes and implementation options and how a national scheme could interact with possible local schemes. The research utilised the 'seven segments' developed by More in Common, which map the British population according to their values. (See Annex 1 for more information about the methodology and Annex 2 for more information on the segmentation.) The research was kindly supported by the Foundation for Integrated Transport, the European Climate Foundation, Uber, and Transport & Environment.

Pay-as-you-drive

charges drivers per mile driven, either as a set amount or one that varies on the basis of different factors (like vehicle emissions, location and time of day)

2. Views of driving and vehicle taxation

To set the scene, research participants were first asked about their general views on driving and their driving habits

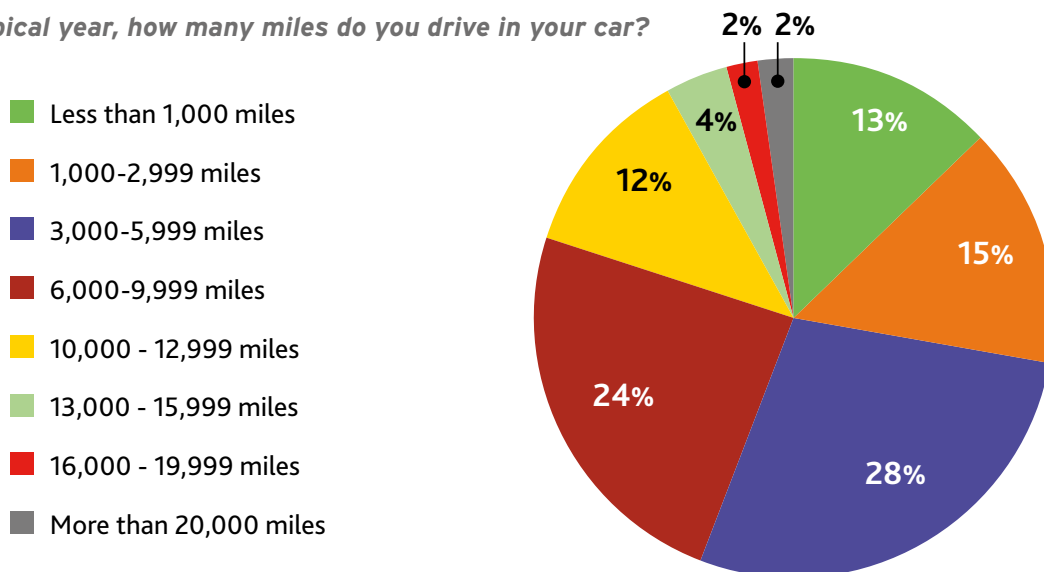


Survey respondents were typically representative of the general public with 78 per cent having household access to a car or van and 22 per cent not. The majority of those that do (67 per cent), own one car per household, while a third (33 per cent) own two or more cars per household. People were most likely to own a petrol (68 per cent) or diesel vehicle (33 per cent) although a small proportion (14 per cent) of respondents owned a hybrid or electric vehicle.

Most survey respondents tend to use their car a small amount, with a majority (56 per cent) travelling under 6,000 miles per year and 28 per cent travelling less than 3,000 miles per year (see Figure 1). The main reasons for using their cars tend to be everyday trips like shopping, doing errands and visiting family (see Figure 2). Only half of drivers use their car for commuting to work at least once a week.

Figure 1: Annual distance driven (source for all figures is the survey we conducted)

Q: In a typical year, how many miles do you drive in your car?

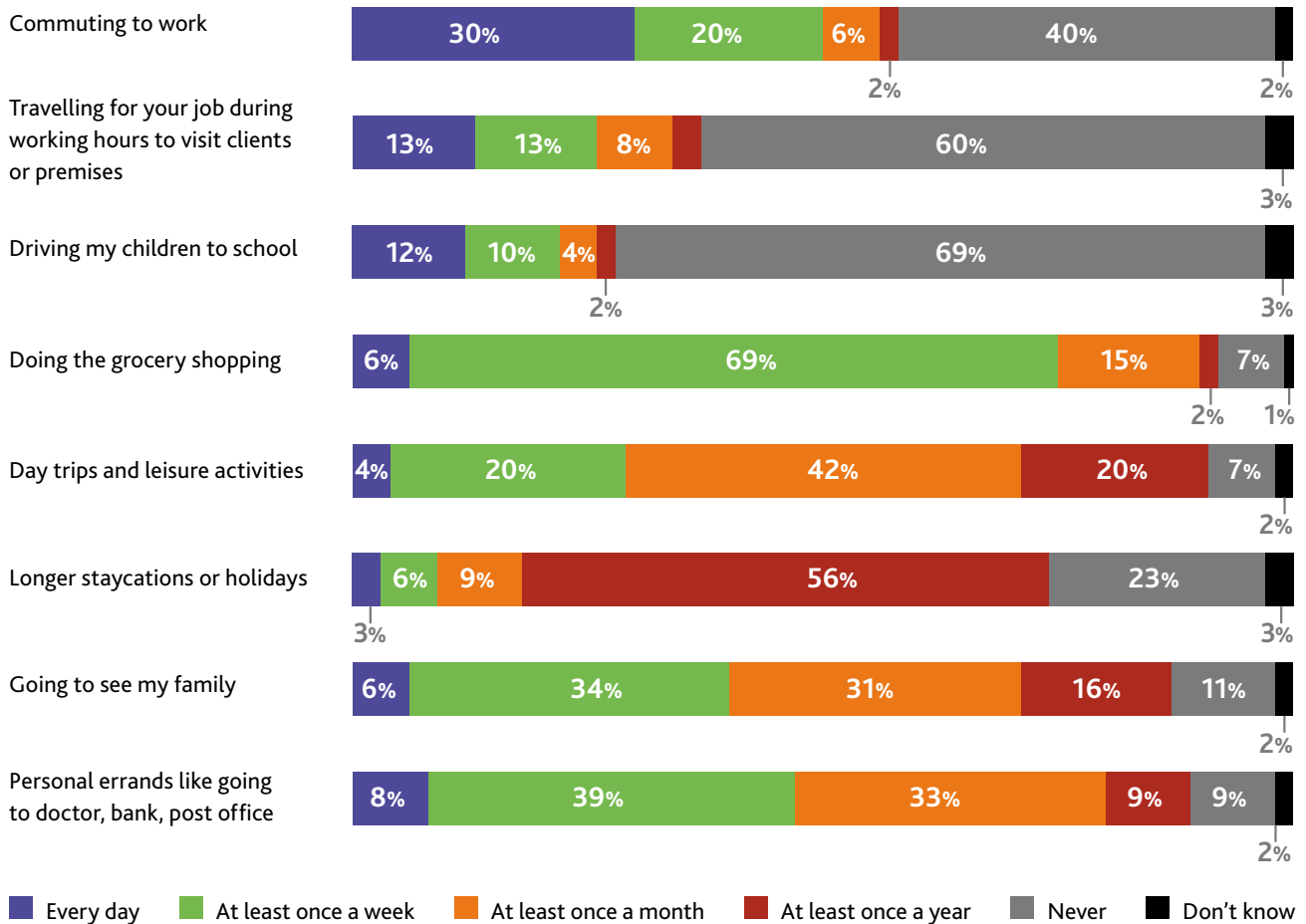


In focus groups, participants described driving as having “control” and the “freedom” to travel when and where needed without relying on public transport, which many said was not sufficient in their local area. At the start of the discussion, some people worried that road pricing may be used as a way to control their driving habits, so any new system needs to be seen to protect, rather than limit, their driving freedoms.

More broadly, participants across all focus groups and segments worry about not being able to afford the rising cost of fuel. For some, this was already leading them to drive less: several participants spoke about combining several journeys into one rather than driving to different destinations separately, to be more efficient and save fuel.

Figure 2: Frequency of travel by car, by journey purpose

Q: How often, if at all, do you use your car to do the following?



However, there was a lack of awareness of what proportion taxation comprises of the cost of fuel. While half (49 per cent) of survey respondents believe fuel duty is unfair (34 per cent believe it is fair), the main reasons for this are either because "fuel is already too expensive" (73 per cent) or "it makes the cost of living even harder when fuel prices rise" (62 per cent). Yet few people in our focus groups separated the recent increasing cost of fuel at the pumps from fuel duty, which has been frozen for the last 11 years and then reduced by 5p in March 2022. Indeed, 26 per cent of respondents believed fuel duty comprises half or more of the cost of fuel at the pumps. This was last the case in May 2020 when fuel duty was at 57.95p and fuel at around 110p a litre. Since the cut in March 2022, fuel duty represents approximately 30 per cent of a 175p litre of fuel.

By comparison, more people believe that Vehicle Excise Duty (VED) is fair (45 per cent) than unfair (35 per cent). The main reasons for this were because "those who have more expensive cars pay more" (42 per cent) and "if it didn't exist, the government would just make another tax that wouldn't be any fairer" (37 per cent).

Half
of survey respondents
believe fuel duty is unfair



35%
believe VED is unfair



3. Overall support for road pricing



According to our survey, there is strong support – three in five respondents – for reforming the current system of vehicle taxation.

We tested both the revenue raising and transparency arguments as the case for reform. There was a 60 per cent agreement (while only six per cent disagreed) with the first– that “income from fuel duty and car tax is falling as people switch to electric vehicles who don’t pay either of those taxes, and we need to find money to pay for public services”. There was a similar support for reform (59 per cent agree and five per cent disagree), given that “the current two-tax system of VED and fuel duty is confusing and not very transparent and means drivers can’t easily keep on top of how much tax they’re paying for driving”.

Support for replacing the current system with a ‘pay-as-you-drive’ road pricing system was then tested at three different points in the survey. **At the first stage, respondents were presented with a range of arguments for and against road pricing and there was considerable overall support (42 per cent support, 21 per cent oppose) for a ‘pay-as-you-drive’ system**, as people found the arguments for road pricing more convincing than the arguments against.

The top reasons for people supporting the idea at this first stage are that it may encourage people to drive less, reducing pollution and congestion on the roads (58 per cent) and that it would reduce the cost of driving for those making fewer journeys (57 per cent). The top reasons for people opposing the idea are that it’s unfair on people who have no alternative but to drive (63 per cent) and a lack of trust in the government to introduce a fair system (52 per cent). In focus groups too, people were more likely to oppose the idea of road pricing if they felt like they would personally lose out, for example if they tended to drive long distances regularly.

Some also expressed scepticism that the government would deliver any promised benefits, such as spending the revenue on roads improvements or better public transport. The following chapters explore options for how to design and implement a new scheme so as to emphasise these advantages and mitigate potential disadvantages.

“For me, that new system would be good, because I only do two to three thousand miles a year so for me it would work out ideal, but for my husband, it wouldn’t.”

Jayne, North Shropshire

After then testing several more arguments and potential benefits for moving towards pay-as-you-drive, support increases to 46 per cent (while 18 per cent oppose). We then test different options for mitigating the potential downsides of such a scheme and for implementation. **At the end of the survey, support for replacing the current system of vehicle taxation with pay-as-you-drive grows to 49 per cent who think it is a good idea – more than two and half times the people who think it is a bad idea (only 18 per cent).** This improvement in the levels of support (see Figure 3) demonstrates that initial opposition can be reduced and some people can be convinced of the benefits of reform, if given the opportunity to learn more about how it can work and what mitigations can be offered. This level of support is also much greater than other recent but less detailed surveys – for example the Social Market Foundation recently found 38 per cent supported and 26 per cent opposed road pricing, which again shows the need for careful framing and reasoned discussions with the public about the different options.

60%

agree there is a need to reform the current system of vehicle taxation

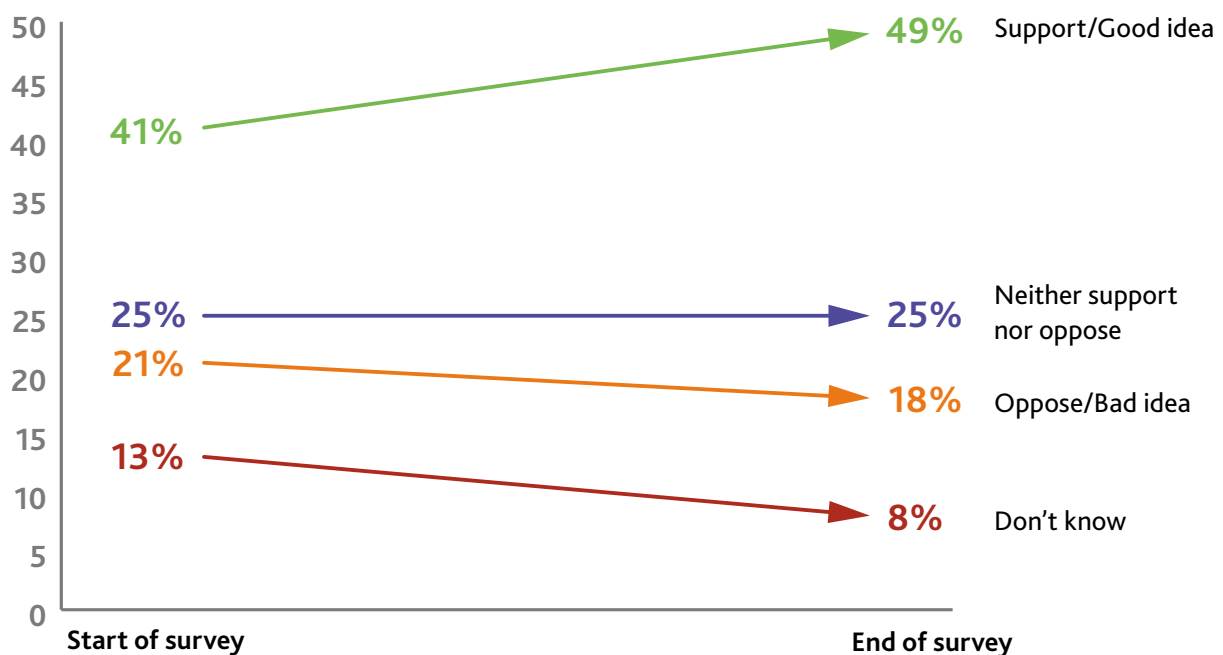
Figure 3: change in support for replacing the current system of vehicle taxation with pay-as-you-drive road pricing

Start of survey

Q1: In general, would you support or oppose replacing fuel duty and car tax/VED with a pay-as-you-drive system?

End of survey

Q2: Given what you've read and understood from this survey, do you think replacing the current system of vehicle taxation with a new pay-as-you-drive system which charges people based on the distance they travel is a good or bad idea?

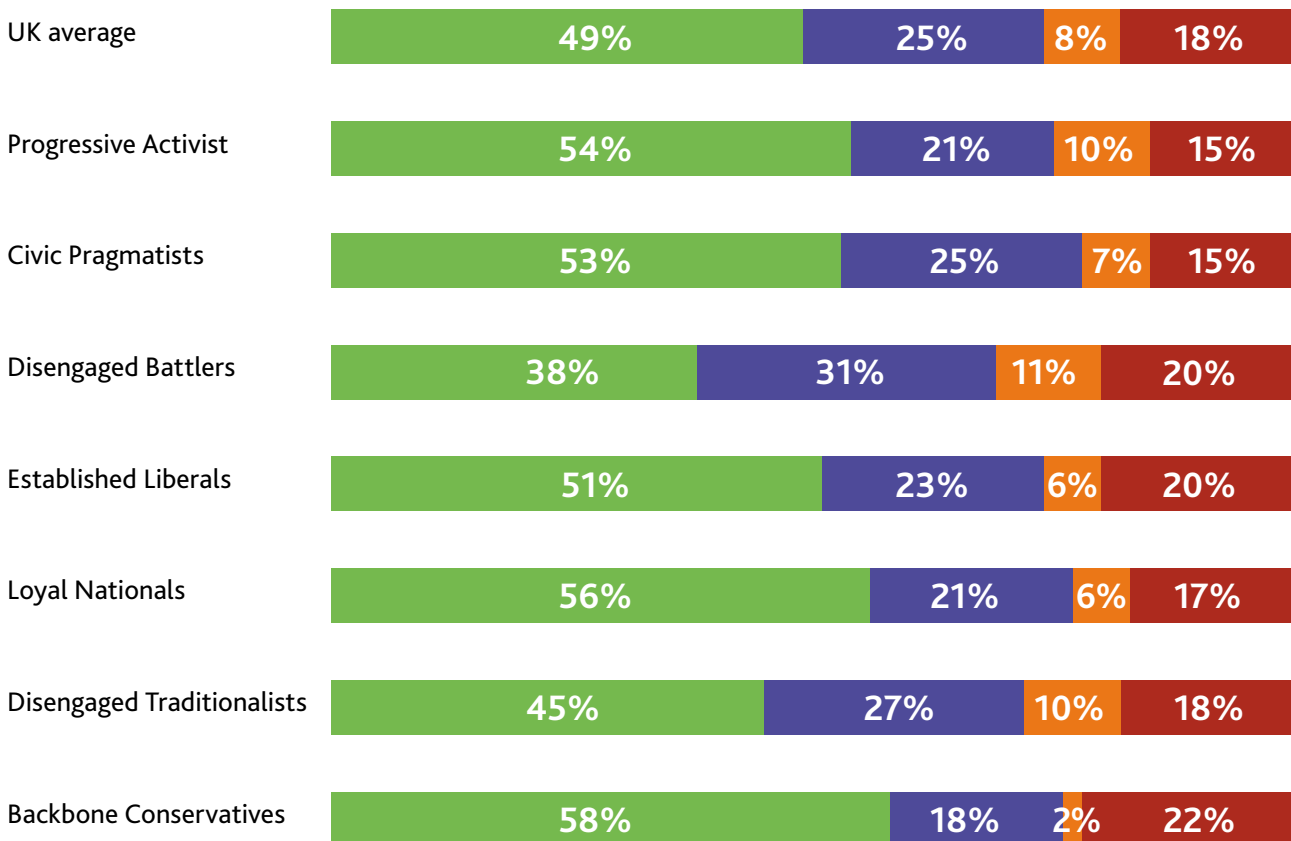


While on average half of all respondents support the move to road pricing, support is higher among drivers (52 per cent) than non-drivers (43 per cent) – simply because, as they have little or no experience of the current system of motoring taxation, there is a higher proportion of non-drivers who are unsure about it (45 per cent don't know or think it's neither a good nor a bad idea) compared to drivers (28 per cent). Regionally, support is highest in the East Midlands (55 per cent), the Southeast of England (55 per cent) and London (54 per cent) lowest in Wales (42 per cent) and the North East (44 per cent).

Politically, support is highest among Liberal Democrat voters (61 per cent), although Labour and Conservative voters are not far behind (both at 52 per cent). Based on More In Common's seven segments, there was broad overall support across all groups. Backbone Conservatives – the traditional Conservative voter segment, and Loyal Nationals – the typical Red Wall voter segment, are the most supportive (57 per cent and 56 per cent respectively – see Figure 4). Not surprisingly, support is lowest among Disengaged Battlers – the segment most likely to be struggling with the cost of living and least likely to vote.

Figure 4: Support for pay-as-you-drive, by attitude segment

Q: Given what you've read and understood from this survey, do you think replacing the current system of vehicle taxation with a new pay-as-you-drive system which charges people based on the distance they travel is a good or bad idea?

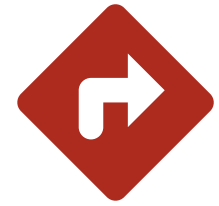


Broad overall support among all groups

■ A good idea
 ■ Neither a good nor a bad idea
 ■ Don't know
 ■ A bad idea

4. Framing the case for reform

A central part of the research was discovering which arguments for reform most resonate with the public.



These included the need to replace declining tax revenue, meet environmental objectives, and increase transparency of the taxation system. Of the arguments and potential benefits of a pay-as-you-drive system, people find the argument around the need for EVs to pay tax the most convincing of all proposed (65 per cent) (see Figure 5). There is a general perception of fairness that all drivers should pay tax. In focus groups some thought it was unfair that people who are driving electric vehicles (and have been able to afford expensive electric vehicles in the first place) are effectively driving tax free, even if their choice is better for the environment.

“EV drivers use the road for free, because they are not paying any tax for the upkeep of the roads... it seems a bit strange that they're on the same roads as everybody else, and they're using tyres on the tarmac same as everybody else, but they don't have to pay anything.”

Mike, West Bromwich

In the same vein, when testing arguments for and against reform, 48 per cent of respondents found the argument that it would prevent the loss of tax income from EVs and ensure the continued funding of public services convincing overall (although there were other arguments that people thought were more powerful) (see Figure 6). In focus groups people understood the country's finances are under pressure with the long-tail of Covid and money has to be found from somewhere. This argument was particularly compelling for Conservative leaning segments.

“I think that there is going to be a massive black hole caused by the lack of revenue from electric cars, so if there's a way for them not to get clobbered as it were, but for them to pay their share, then I think it's a really good idea.”

Adrian, Stroud

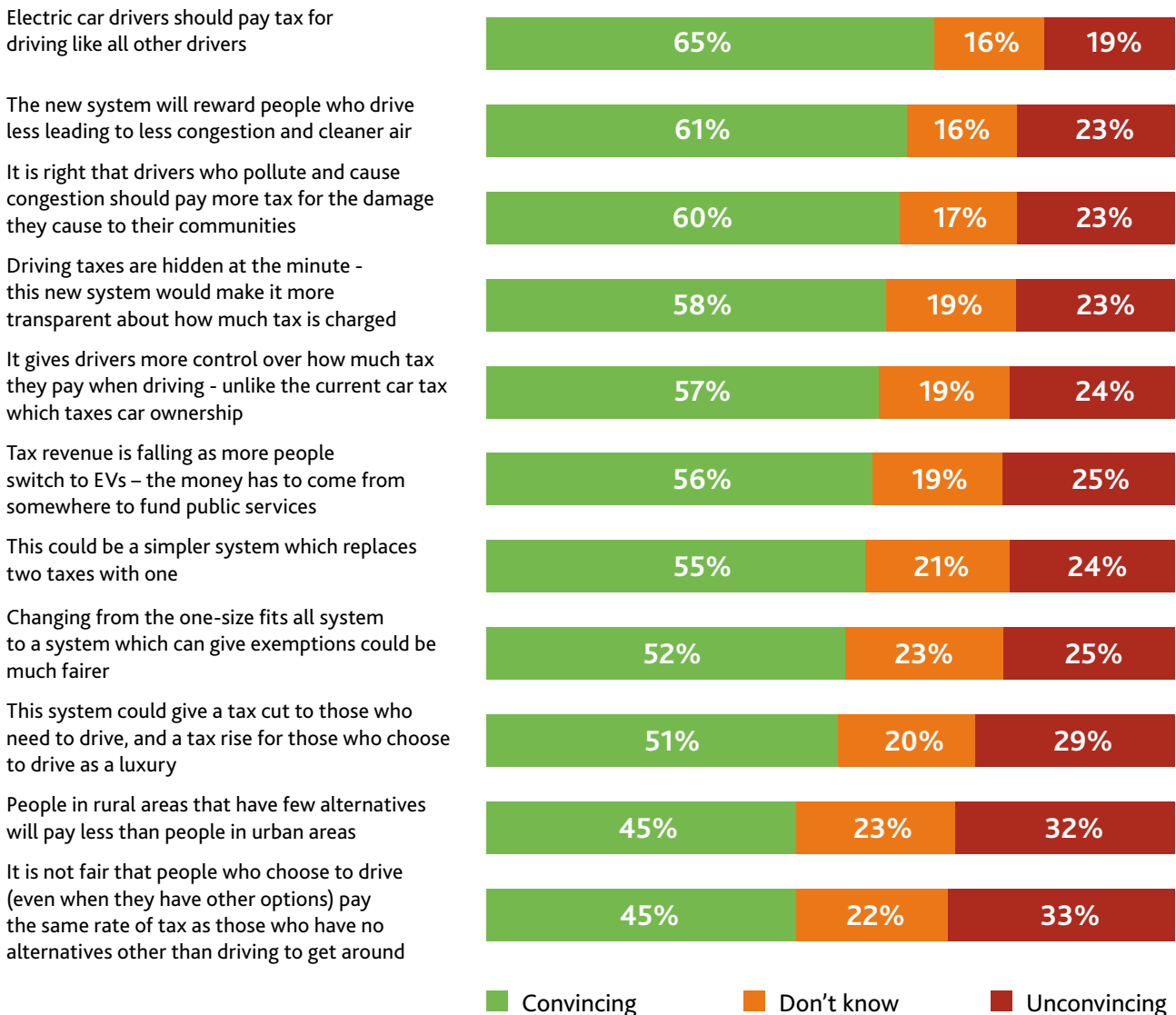
This demonstrates that **framing the need for reform around being fiscally responsible, by maintaining revenue from motoring taxation, and fairness between internal combustion engine vehicle drivers and EV drivers** – much as the Transport Select Committee report did – **would resonate with the public**. But this needs to be carefully calibrated as not to antagonise the general public against existing EV drivers and not potentially stymie the uptake of EVs. An argument can be made which acknowledges that EV drivers tend to be better off than most other drivers and taxing them can help other drivers make the switch from older, more emitting vehicles to better, zero emission alternatives.

The notion of rewarding those that drive less was the most popular argument for reforming the current system (64 per cent). With rising fuel costs, many focus group participants had already started combining journeys to save money. Taking fuel duty out of the overall price of fuel at the pump would make the link more obvious and encourage more people to see it as a saving. Also, if the pay-as-you-drive rate remains at a similar level as fuel duty, by applying VAT only to the cost of fuel and not to the duty itself, people would save at least 10p per litre compared to currently. As the survey showed that 80 per cent of people drive less than 10,000 miles a year, if designed right, **the vast majority of drivers could make savings from a pay-as-you-drive system**. Another way to do this is through a tax-free mileage allowance, discussed in chapter seven.

We also learned from the focus groups that the public are generally exhausted by the changes and challenges of the last few years. While any reform of vehicle taxation would be a massive undertaking, any new proposal must acknowledge and communicate that.

Figure 5: Strength of arguments and potential benefits of pay-as-you-drive

Q: There are several arguments and potential benefits for replacing the current system with pay-as-you-drive. Which, if any, of the following arguments do you find convincing?



Reform can be phased in over time and emphasise how it is a sensible thing to do and will make people's lives easier, particularly by putting money back into most people's pockets, and help with tackling the cost of living.

“I think [a pay-as-you-drive system] could be beneficial because - if it is all upfront, and it is open and clear - then people can budget better.”

Joe, South West London

A secondary compelling factor behind the notion of rewarding those that drive less was the wider health and environmental benefits of reduced air pollution and vehicle emissions. This is closely linked to the “polluter pays” principle that drivers who pollute and cause congestion more should pay more for the damage they cause to their communities. The polluters pay principle was the third most convincing benefit of moving to a pay-as-you-drive system. Progressive Activists and other left-leaning segments found this argument more convincing, with lower support from Disengaged Battlers.

“It may actually be more equitable and it might be fairer because those people that use the roads the greatest will pay the most and those that use it the least will pay it the least.”

Tom, Blackpool

Lastly, arguments about the current taxation system being unfair and less transparent were less convincing than those above (see Figures 5 and 6). While at the start of the survey more people thought fuel duty

was unfair than fair, this was mainly because of the cost it adds, whereas more people thought VED was fair than unfair, as focus group participants did not see it as a large financial burden. Therefore, a reform campaign should not put this argument at the centre but it can be a useful supplementary message, particularly for segments that find this argument the most convincing (i.e. Progressive Activists, Civic Pragmatists and Loyal Nationals). Moreover, making taxation more transparent would encourage personal responsibility for the amount of driving people do and support the 'drive less - pay less' principle.

Figure 6: Strength of arguments for and against

Q: Below are some possible arguments for and against a pay-as-you-drive system, in each instance please indicate if you think the argument is a strong or weak argument

Arguments for

It would mean that those who drive less will pay less tax



It would mirror what happens with the current system – for most, the more you drive, the more you pay



It would be more transparent about how much drivers pay in tax than the current system, as fuel duty is hidden in the price of petrol at the pump



It could be much simpler than the current two-tax (VED and fuel duty) system, with a single payment being made based on how far a person drives



It would prevent the loss of tax income from EVs that currently pay no VED and fuel duty, and ensure public services can continue to be funded



Arguments against

A pay-as-you-go system would penalise low income workers who have to drive because they work shifts or nights when public transport options are less available



The government would use the system as an opportunity to put up taxes



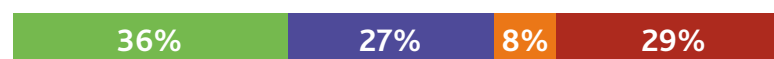
A pay-as-you-go system will be more complicated than the current one meaning drivers will have to think about the tax they are paying more regularly



It would discourage people from switching to EVs, as people who drive EVs would then have to pay the tax, unlike with the current system



It might require the government to know roughly how much one drives, which is something that should be private information



■ A strong argument
 ■ Neither a strong nor a weak argument
 ■ Don't know
 ■ A weak argument

5. Implementation options

Having examined the case for reform, there are many different permutations of how a pay-as-you-drive road pricing system could work in practice. The main ones are described below.



Features	Pros	Cons
Option 1: A flat per-mile charge for EVs only (while keeping fuel duty and VED as they are)	<ul style="list-style-type: none"> ● Targets EVs which are not currently taxed ● EVs still make up a relatively small proportion of the market so it would be easier and quicker to implement than for all vehicles ● Flat rate would be easy to understand and communicate ● It does not require vehicle tracking and can be implemented through odometer checks ● Prevents EVs from becoming progressively much cheaper to run therefore avoids rising car use and congestion. 	<ul style="list-style-type: none"> ● Does not tackle the lack of transparency and fairness in the current system ● Creates more complexity with two different systems for petrol/diesel and electric vehicles and question marks about which category hybrids should fall under ● Treats all journeys the same regardless of whether it can be made by other means, penalising people who have few alternatives to driving ● Provides no incentive for petrol and diesel drivers to use their vehicles more efficiently ● Potentially slows down the uptake of EVs.
Option 2: Replacing fuel duty and VED for all vehicles with a set per-mile charge with the charge level based on vehicle type and emissions (i.e. lower charges for smaller and less polluting vehicles) but regardless of when and where one drives	<ul style="list-style-type: none"> ● A single system for all vehicles that's relatively easy to understand ● Tackles the lack of fairness and transparency of the current system ● Fair reflection of relative damage different vehicles produce in terms of emissions and road surface damage ● Incentivises all drivers to use their vehicles more efficiently, reducing congestion, pollution and emissions ● Encourages the uptake of cleaner and smaller vehicles ● It does not require vehicle tracking and can be implemented through odometer checks. 	<ul style="list-style-type: none"> ● Treats all journeys the same regardless of whether they can be made by other means, penalising people who have few alternatives to driving ● More complex to implement and administer than option 1.
Option 3: Replacing fuel duty and VED for all vehicles with a "smart" per-mile charge that varies depending on vehicle type and emissions, location and time of day	<ul style="list-style-type: none"> ● Most accurately reflects the relative damage different vehicles produce in terms of congestion, emissions and road surface damage ● Emission variable encourages the uptake of cleaner and smaller vehicles ● Time of day variable encourages driving at off-peak times reducing congestion ● Location variable takes into account the availability of alternative modes of transport so people who have no option are not penalised. 	<ul style="list-style-type: none"> ● Different rates in different areas and at different times of day make it more complicated to understand ● It requires vehicle tracking and telematics.

An EV-only system (option 1 in the table) is the simplest to implement, especially while the relative proportion of EVs out of all cars on the road is still relatively low. Given that the tax revenue issue arises because of the fact that EVs pay no tax, it would be tempting for policy-makers to address the gap by just taxing EVs. However, a central barrier is that EVs have enjoyed a tax-free status so far in order to incentivise their uptake for environmental reasons. Taking these concessions away would risk accusations that people were asked to buy EVs but are now being penalised. This could potentially slow down the uptake of EVs, unless there are other incentives, alongside the regulations being put in place.

Yet, our research showed that people understand the need to start treating EVs like other vehicles in taxation terms. Most focus group participants were unambiguous that EV drivers ought to “pay their way” and 65 per cent of survey respondents found the argument that “electric car drivers should pay tax for driving like all other drivers” convincing (only 16 per cent find it unconvincing - see Figure 5). While 40 per cent of respondents believe that “EVs should not be taxed to encourage more people to make the switch”, a majority (56 per cent) believe that “it is fair that EVs should be taxed” but at a lower rate (see Figure 7). Whereas it is left-leaning Progressive Activists that favour no taxes on EVs, more people overall – and right-leaning segments particularly (Loyal Nationals, Disengaged Traditionalists and

Backbone Conservatives) – are more likely to say that it should apply to everyone. **This demonstrates that the inclusion of EVs is a core reason for the introduction of pay-as-you-drive in the first place.** The earlier the tax system is reformed, the less likely is a perception that “EV driving will always be tax-free” to persist.

When discussing various options of an EV-only system versus an all-vehicle system, the argument that “If the government is losing money because electric vehicles are not paying tax, then they should introduce a tax for electric vehicles and leave the rest of the system as it is today” had significant support (52 per cent agree and 16 per cent disagree) (See Figure 7). However, having a single system for all vehicles was even more appealing: 59 per cent agree that “any change will only be fair and work well if it applies to all drivers and not have one system for electric vehicles and another for petrol and diesel vehicles” (nine per cent disagree).

Overall, there are many benefits to reforming the vehicle taxation system as a whole and replacing fuel duty and VED with a pay-as-you-drive system for all vehicles, including all the benefits outlined in the previous chapter’s figure 5: less confusion from a single system, more transparency, petrol and diesel drivers doing low mileage paying less tax, and corresponding declines in traffic levels, air pollution and emissions.

Figure 7: Different options for treating EVs within a reformed system

Q: To what extent do you agree or disagree with the following statements?

Any change will only be fair and work well if it applies to all drivers and not have one system for EVs and another for petrol and diesel vehicles



It is fair that electric vehicles should be taxed, but the amount should be less than that for petrol and diesel cars



If the government is losing money because EVs are not paying tax, then they should introduce a tax for EVs and leave the rest of the system as it is



We must move away from polluting vehicles - so EVs should not be taxed to encourage more people to make the switch



■ Agree ■ Neither agree nor disagree ■ Don't know ■ Disagree

Therefore, a system that applies to all vehicles (options 2 and 3 in the table) is preferable in the long-term. Nevertheless, a pay-as-you-drive scheme can be piloted on electric vehicles first (an EV-first charge), before fuel duty and VED being abolished and a distance-based system being rolled out more widely.

The issue then becomes how simple or complicated the system should be. A flat per-mile charge for all vehicles is technically possible and would be the simplest to understand and to implement. In focus groups some thought flat rates were a good option, especially those who feared they would have to pay more if variable rates are introduced. However, it takes no account of vehicle characteristics or the journey made, so it is unfair on drivers with less polluting vehicles or those with no alternative but to drive. In the survey, 60 per cent believe “it is right that drivers who pollute and cause congestion should pay more tax for the damage they cause to their communities”.

Therefore, at the very least, the per-mile charge rates need to vary on the basis of vehicle emissions (option 2), so that the less polluting the vehicle, the lower the per-mile rate it would pay. This would still be a static or set per-mile charge thus only requiring a distance reading, but it would encourage a switch to lower-emission vehicles when owners consider vehicle renewal. EVs should still pay very low rates, at least while they are still in the minority of all vehicles on the road and while energy prices remain high, to continue stimulating a switch. Combined with their greater efficiency, this would still make them cheaper to run than petrol or diesel cars. Indeed, a majority of survey respondents (56 per cent) agree that EVs should be charged but at a lower rate than petrol and diesel vehicles. Again, this would be a good interim step to the roll-out of a full pay-as-you-drive scheme.

“For an essential worker who has no choice but to use their car, they’re just going to get hammered because they’re going to be doing a lot of miles.”

Mike, West Bromwich

The main downside of a static set charge (option 2), however, is that it does not take into account when and where the journey takes place. Therefore, the main attraction of a more sophisticated scheme, which recognises when and where the vehicle is being driven (option 3 in the table) is that it can vary the charge depending on the availability of alternatives. So people who choose to drive in dense urban areas where the journey could easily be made by public transport could be charged at a higher rate than people who have little choice but to drive in more rural areas with fewer public transport options, or on days of the week and at times of the day/night when such options are unavailable. This is a key element of ensuring fairness in a pay-as-you-drive system.

In the survey, the main argument against a pay-as-you-drive system was that it “would penalise low-income workers who have to drive because they work shifts or nights when public transport options are less available” (see Figure 6), also recognising that not everyone has the same ability to pay if they have no alternatives.

So it is important that a new system recognises and reflects this. A fully variable, “smart” road pricing system (option 3) is the best way to allay these concerns. It can have a base per-mile rate based on vehicle emission rates with top-up for different types of roads and locations. If vehicles are fully tracked by a plug-in GPS device or in-built telematics, it can use technology to rate public transport connectivity. Or availability of alternatives can more simply be reflected in a zonal system for city centres, inner cities, outskirts, smaller towns and rural areas, which would be more predictable and easy to understand by drivers. It can also vary the charge by time of day and day of the week to reflect reduced public transport provision in the evenings or weekends and to encourage drivers to travel off-peak, which would smooth traffic flow and reduce congestion. So a fully variable smart road pricing system would most fairly reflect the impact of actual journeys and should be the option to work towards in the longer term.

6. Technology options

While smart road pricing is the fairest option, its main downside is the need for vehicle tracking to reflect location and time of day. This would require adding an in-vehicle GPS device or connecting to the vehicle's on-board telematics system.



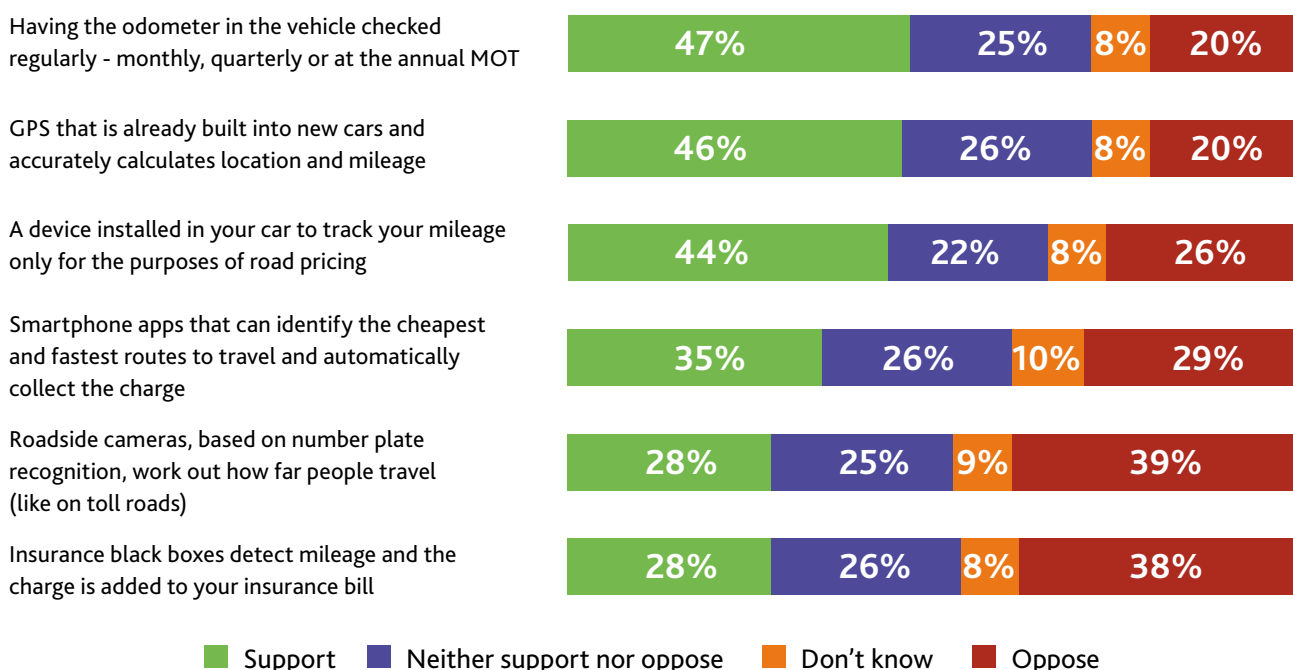
In the past, campaigns to introduce road pricing have failed because of focused objections by campaign groups on the grounds that people would prefer not to be tracked and that doing so would infringe on their privacy. This is still a barrier in the view of some policy-makers.

By comparison, the main benefit of a static set charge based on emission bands is that, once the right rate has been determined for the specific vehicle, only a distance driven measure is required for the right amount to be charged. This means that no in-vehicle device is required to track the vehicle location and a reading of the odometer can be taken at the vehicle's MOT, or more frequently, if required.

Yet, our research showed that **both the MOT system of reviewing mileage and the in-vehicle tracking are equally popular** (see Figure 8). These two options are particularly attractive among those who are neutral or do not support road pricing at the start: introducing odometer checks provides a net increase of support by 15 percentage points for those who do not support reform at the start of the survey and by 11 percentage points for those who are neutral. This demonstrates that people who are initially opposed can be convinced once their concerns are addressed by specific measures.

Figure 8: People's preference for technology to implement pay-as-you-drive road pricing

Q: Below are some technology options that could be used to measure mileage under a pay-as-you-drive system. Please indicate whether you support or oppose the following...



The analogy of paying tax like your energy bills – a fixed rate based on your predicted mileage for the month/quarter/year, with checks done against actual mileage at regular intervals – was popular to both survey and focus group participants due to the certainty it provides. In the survey, 36 per cent indicated this measure would make them more supportive. In addition to being easier to understand and to administer, this reinforced the view that a static per-mile system that relies on regular odometer checks only, rather than telematics, could be a good interim measure, if suitable discounts are introduced for those disproportionately affected.

In terms of tracking options, there was slightly more support for the in-built telematics/GPS capability that newer car models have (46 per cent), but having a plug-in device installed additionally, which would be required for older models, was not far behind (44 per cent). Having a device installed with enhanced encryption just for the purposes of administering the system was the second most popular measure, increasing support for the transition by a net 22 percentage points (see Figure 9). Participants clarified **having an encrypted device installed in car would be acceptable if it only tracked mileage for the purposes of taxation – but explicitly not tracking other variables like speed or where you are going.**

The most popular measure to make the system more privacy-friendly was having the opportunity to opt out of a variable per-mile charge and instead pay a fixed monthly charge, which would be set at the higher end of possible charges (similar to having the choice to install a black box in a car which records how safely a person drives and thereby reduces their insurance, or opting for paying the higher, monthly set fee decided by the insurance company). **This could present an opportunity to progress straight to smart pay-as-you-drive (option 3) with flat monthly charges (option 2) for those who choose to opt out.**

By far the least popular technology options were roadside cameras or insurance black boxes. In focus groups they were considered the most invasive options, particularly because cameras gave people the feeling of “being watched” as they drove, while insurance black boxes raised concerns about monitoring where people were going or potentially being penalised for bad driving. These were also the only technology options that would lead to a reduction in support for a pay-as-you-drive system (see Figure 9).

While less than half (48 per cent) of survey respondents believed that changes to taxation would give government more control, a larger proportion (56 per cent) agreed that pay-as-you-drive would give drivers more control, as it is more transparent about what they are paying. While Loyal Nationals were the most likely to hold the latter view, they were also the group most likely to think a pay-as-you-drive system would make little difference to how much we are being tracked as everything we do is already tracked on our phones.

“ *I just won't feel comfortable with anything to do with checking exactly where I'm traveling to, that's my decision. It takes away a little bit of privacy for me.* ”

Jonathan, Aston

“ *We've all signed up for loyalty cards, so people would know what we're buying. We're already handing everything over without a care in the world, what does it matter if it's recording if we went three miles to Travis Perkins or 22 miles somewhere else.* ”

Adrian, Stroud



40%

would be more supportive if there was the ability to opt-out of distance charging and pay a set charge instead

Figure 9: Change in support for pay-as-you-drive from different measures that can make it more privacy-friendly

Q: The following measures are potential ways a pay-as-you-drive system can be made less complicated and more privacy-friendly. Please indicate whether these measures would make you more or less supportive of the pay-as-you-drive model, or have no impact.

Being able to opt out of pay-as-you-drive and instead pay a set annual tax (even if that might be higher)

▲ 24%

A device in your car with enhanced encryption which can only track mileage for the purposes being charged but does not hold data on location

▲ 22%

Having a set rate for vehicles based on the emissions they produce (but regardless of where they drive)

▲ 19%

Paying a monthly bill on actual or average predicted mileage with adjustments when required and regular checks on the car's mileage

▲ 12%

Having a flat rate for everyone across the country (regardless of type of vehicle or where they drive)

▲ 7%

The payment being collected automatically by a smartphone app with enhanced encryption so you don't need to worry about calculating rates for individual journeys

▲ 2%

Roadside cameras determining the approximate distance driven rather than a device in your car

▼ 16%

The payment is added to your insurance bill and collected by insurance companies

▼ 19%

Net balance (more supportive minus less supportive)

Overall, people were less concerned about the privacy implications of being tracked than commonly perceived, making a smart variable road pricing system just as acceptable publicly, while providing the key benefit of taking into account the availability of alternatives. If a static MOT option is used as an interim measure, there may be ways to build in fairness by reflecting the availability of alternatives in other ways. One of the mitigation options to make the system fairer to different user groups (explored in the next chapter) is to provide

a free miles allowance to drivers.²² This could either be a set amount for everyone or it can vary by your circumstances. For example, people living in more rural postcodes could be given a higher allowance than those living in urban areas to reflect the quality of public transport connectivity where you live. While this would not reflect the comparative alternatives for every single journey one makes, it would still be a good indicator of fairness.

7. Mitigations

One of the main challenges of designing a pay-as-you-drive system is ensuring that it is fair to different types of drivers, including those on low incomes who cannot afford to pay additional charges or those who have no choice but to drive, either because there are few viable alternatives or because their livelihoods depend on driving.



For the people who opposed the idea of replacing fuel duty and VED with pay-as-you-drive at the start of the survey, the main reason (63 per cent) they did so was because it could be unfair on people who have no alternative but to drive.

“All sorts of people that have to be able to get out and about – can’t do that on the bus. If you are a care worker visiting six clients and need to help them feed and get changed and get bathed, you can’t do that on the bus. It’s just not practical. ”

Mike, North Shropshire

Yet designing effective mitigations is also an opportunity to address unfairness of the current system. The current approach to fuel duty means that, to address rising costs of fuel, the Government can either give a tax cut or freeze to everybody or nobody. It is a blunt and unwieldy instrument, and the recent cut in fuel duty gained little political traction as it appeared it had not been fully reflected in the price at the petrol pumps. **A pay-as-you-drive system would make it possible to offer targeted ‘tax cuts’, exemptions or higher tax-free allowances to specific groups.**

In terms of affordability, ensuring that road pricing replaces the current vehicle taxation system of fuel duty and VED, rather than adding to it, would mean that pay-as-you-drive is not an additional burden on drivers but a different way to raise roughly the same amount of tax. **Pledging that road pricing would raise no more than fuel duty and VED currently, could be a positive way to ensure public support.** A significant proportion (43 per cent) of survey respondents said introducing a legal commitment

that the new system will collect the same money overall as fuel duty and VED currently do would make them more supportive of the reform. Several previous reports have also suggested revenue neutrality would be central to ensuring public acceptability of road pricing, although some local leaders feel it would be a missed opportunity to raise additional funds to support local transport objectives.²³

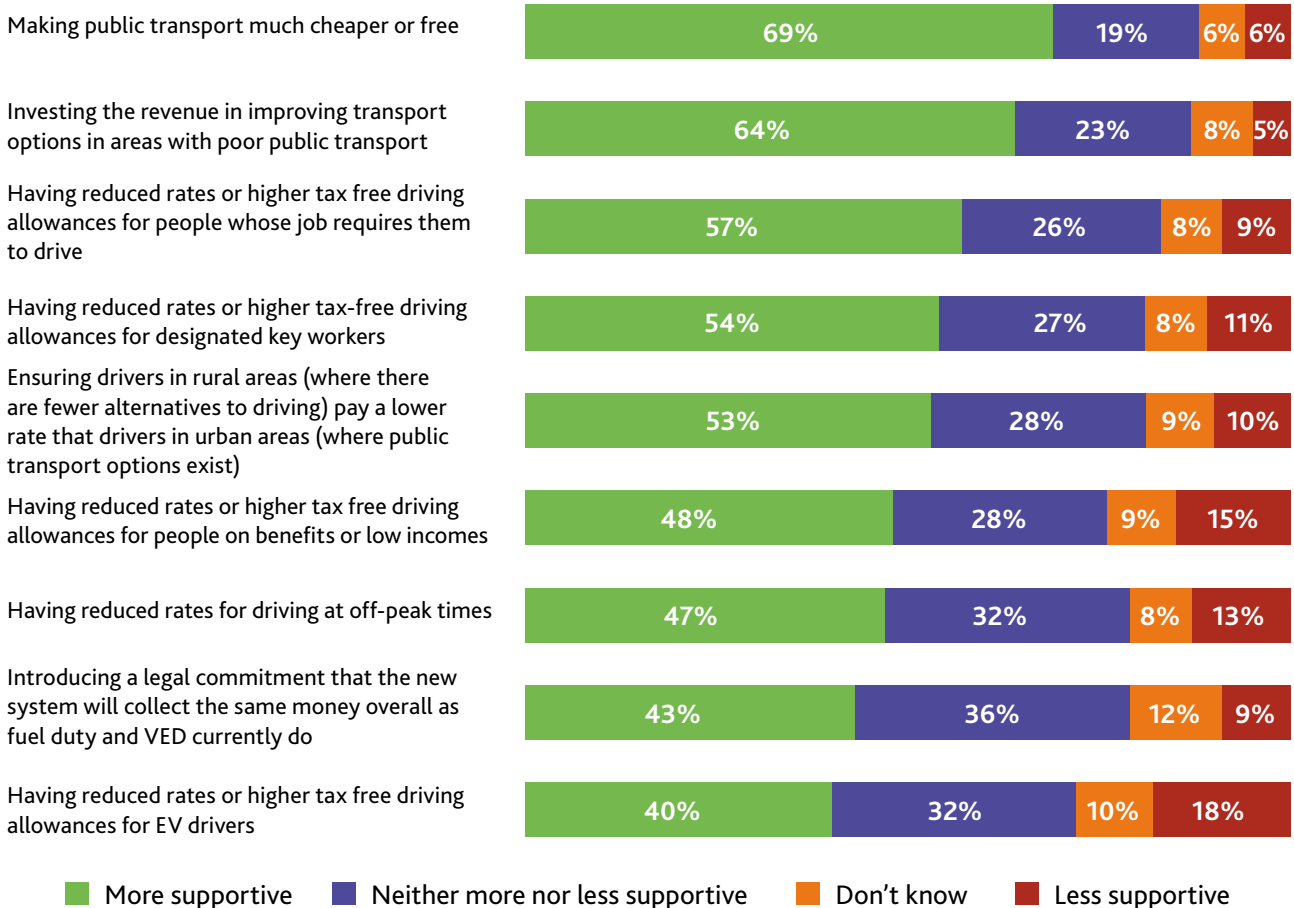
In terms of availability of alternatives, **investment in public transport is central to ensuring fairness of the new system.** Out of all possible measures to make the system cheaper and fairer for drivers, making public transport cheaper or free came top, with seven in ten (69 per cent) survey respondents saying this would make them more supportive of road pricing, followed by investing the revenue in improving public transport options in areas with poor connectivity (increasing support among 64 per cent of respondents) (see Figure 10). In addition, when asked about what the revenue generated from pay-as-you-drive should be spent on, increasing the availability and quality of public transport (45 per cent) came second only to road maintenance (57 per cent), demonstrating people’s preference for ring-fencing at least a proportion of the revenue for transport investment rather than general taxation.

“If they really want to push the green alternatives, they have to start having greener public transport. Green public transport that is free, and then people will stop using their cars. ”

Morag, Seaford

Figure 10: Options to make pay-as-you-drive cheaper and fairer for drivers

Q: The following measures are potential ways a pay-as-you-drive system could be made cheaper and fairer for drivers. Please indicate whether these measures would make you more or less supportive of the overall pay-as-you-drive model, or have no impact.



“ They might say the money’s going to go to public transport services, but really it’s probably not. So I wouldn’t have much faith. ”

Cenzina, Stroud

However, in the focus groups some segments expressed scepticism that government would fulfill any promises to invest revenue back into transport improvements. Therefore, it would be important for increased investment to be allocated and to start bearing fruit before the implementation of a new pay-as-you-drive scheme. **Rather than promising large-scale road building projects, Government should deliver cheaper public transport fares and improved road surfaces quickly to win public confidence.**

Until better public transport options are in place, people think that those with no good alternatives should be paying less with suitable measures in place to mitigate the impact of the scheme on those that are most likely to be adversely affected. **Mitigations can take various forms, including complete exemptions (permanent or for a limited period), lower per-mile rates, or a specific tax-free mileage allowance. The most suitable mitigation can be introduced to specific groups – something which is not possible with fuel duty.**

Asked which groups should receive exemptions or other mitigations, more people believe disabled people, key workers, people who rely on driving for work, those with no public transport alternatives and people with caring responsibilities should have some form of exemption and reduction than those who believe they should not (see Figure 11). Conjoint analysis of various permutations of scheme design also indicated that including exemptions for drivers who have no choice but to drive (key workers and those in rural areas) make the policy more popular by about 11 per cent each. (In other words, if the baseline preference for a form of the road pricing policy was 50 per cent, then we can expect adding an exemption for key workers to increase this to 61 per cent.)

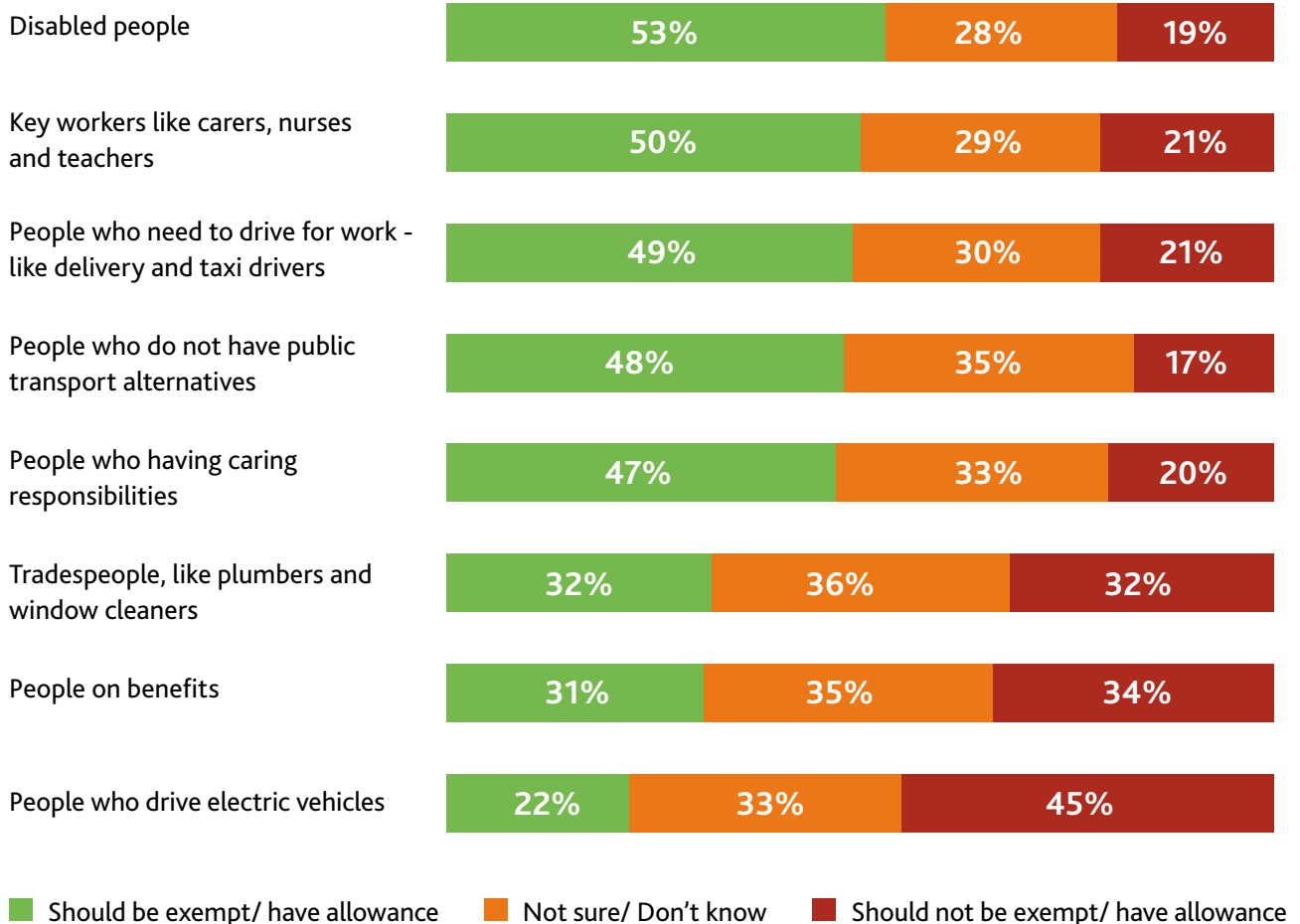
“In rural areas you do not have an alternative, you have to have a car because there isn't an alternative bus service or train service. It's simply not there, so you're obliged to have a car.”

Hillary, Ackworth

However, survey respondents were less sure about other groups such as people on benefits. Overall, exemptions were more popular with more liberal segments like Progressive Activists and Civic Pragmatists, as well as with the socially conservative Loyal Nationals who are generally concerned about economic inequality.

Figure 11: Groups people believe exemptions or other mitigations should apply to

Q: In your view, were pay-as-you-drive to be introduced, should any of the following groups of people be exempt or have a 'free mileage' allowance?



Focus group participants also expressed a number of reservations about mitigations. For example, a couple of participants thought that people on benefits already receive heavy support from the taxpayer, so they felt providing even more discounts was unjustified.

“If you add up all the benefits and everything else that goes with it, we’re probably on the equivalent of the same money. So now how do you justify giving someone who’s on regular Universal Credit, a discount and you don’t give me a discount? There’s no benefits for me.”

Maria, West Bromwich

A large proportion of focus group participants had concerns about how specific groups would be defined and where the lines would be drawn, for example for key workers, and whether this would mean excluding some categories of workers who may feel they should receive the discount. Others were concerned about the potential to cheat the system and that a high level of mitigations would make the system more complicated. In the survey, people were evenly split on this: while 49 per cent thought there needed to be exemptions for people who have no choice but to drive or who cannot afford to pay the charge, 51 per cent believed that, if exemptions were introduced, too many people would try to use them to get around paying the charge.

Despite the focus groups’ reservations, among survey respondents unsure of the idea of pay-as-you-drive, their support for the reform increased by 12 percentage points when exemptions are offered to key workers and by 9 percentage points when exemptions are offered for drivers with no alternative transport methods. Overall, exemptions are more popular with those who do not drive than those who do drive.

“I think you opened a massive can of worms... you will have so many different categories of workers out there who will feel aggrieved because is their job not as good as that job and should they not be in that category?”

Ash, Established Liberal, North Shropshire

“I don’t see how it could be made fair. You’d have to have a load of different tariffs, and the more complicated a tax system becomes, the more inefficient it becomes.”

Hillary, Ackworth

This demonstrates careful consideration needs to be given to any mitigation measures and that those should be introduced only if considered absolutely necessary to gain public support or to increase fairness. On balance, blue badge holders could receive a per-mile discount on top of different levels of free mileage allowances to all drivers, dependent on the quality of public transport connectivity where they live, for example 1,000 miles for people living in cities increasing to 3,000 miles for people in remote villages. **The concept of having a certain amount of free mileage allowance appealed to focus group participants.** Those driving less liked the idea of trying to stay within the allowance to avoid paying vehicle tax, which may be a good way to help reduce overall emissions. As mentioned above, a tax-free allowance could also be an effective means of support when people are finding it tough to cope with the rising cost of living.

When it comes to income levels, there is generally little difference in the disposable income levels of urban or rural dwellers,²⁴ although on average people living in rural areas spend more on transport than those living in urban areas.²⁵ Our survey showed that most of those earning less than £30,000 drive in the region of 3,000-6,000 miles per year, while most higher earners drive 6,000-9,000 miles per year. Also, nearly twice as many higher earners commute daily (34 per cent) than those on less than £30,000 (19 per cent). Therefore paying by distance already accounts for different income levels.

Businesses and sole traders whose livelihoods depend on driving, such as those in the logistics industry, taxi drivers, etc. would also be disproportionately affected. This is due to high mileage, larger vehicles and being less able to avoid peak times. Whether a lower per-mile charge or a higher tax-free allowance works better for fleets and sole traders – while still making a fair contribution to the cost of road maintenance and the external costs of vehicle use – needs to be determined in consultation with industry when the scheme is being designed.

8. Interaction with local schemes

How a national road pricing scheme interacts with any local charging schemes, such as congestion, clean air or low emission zones, is another question to consider.



National and local road pricing schemes are fundamentally different. While a national charge would be levied by central government (and more specifically HM Treasury) for the purposes of taxation revenue collection, local schemes are implemented by local government to help reduce local congestion and pollution. By law, local authorities are not permitted to implement road pricing for the purpose of raising revenue, any charges need to be proportionate to achieving the outcome of congestion and/or pollution reduction, and any revenue raised must be spent on local transport priorities. While local authorities can only apply charges to local roads they have responsibility for, central government can do so on all roads. While for a national scheme, a distance-based scheme is the best way to charge proportionately to usage in the same way that fuel duty does, local schemes tend to be cordon-based, charging drivers a set amount for entering a specific zone, typically a city centre where there are high traffic volumes.

At the moment, there are only a handful of local schemes. These include the Congestion Charge and Ultra Low Emission Zone in London, a charging Clean Air Zone in Birmingham and the Zero Emission Zone in Oxford. But there are others

planned: more Clean Air Zones are due to be implemented to bring areas within legal levels of air pollution,²⁶ a Low Emission Zone in Glasgow that currently applies to buses is due to be expanded to include cars and there are similar schemes planned for other Scottish cities, and Cambridge is proposing a new Sustainable Transport Zone.²⁷ The question for policy-makers is how a potential pay-as-you-drive scheme should interact with any local schemes. While local schemes are already on top of national taxation, if a national road pricing scheme is introduced making tax more visible, there may be increased perception by drivers of being double-charged. This could be prevented through coordination between national and local government.

We examined people's views on local schemes and how a national pay-as-you-drive scheme should interact with those. While in general 48 per cent support local charging schemes and 21 per cent oppose them, 40 per cent would support the introduction of a scheme in their local area and 29 per cent would oppose them. Support for schemes in their local area is highest among Progressive Activists (59 per cent), as well as those living in large urban centres, and lowest among

	National	Local
Decision-maker	HM Treasury	City mayors / authorities
Legal basis	Government taxation	Local devolution (Transport Act 2000)
Rationale	Revenue collection	Pollution and congestion mitigation
Application	All roads	Local roads
Type	Distance-based, variable charge	Cordon-based, set daily charge
Implemented by	National Highways / DVLA	Local Transport Authorities
Revenue spent on	General taxation (unless ringfenced)	Local transport schemes

Disengaged Traditionalists (25 per cent) – the segment least willing to make changes in their lives for environmental reasons. The main reason for opposition is the same as for a national scheme – that they would unfairly impact people who need to drive (52 per cent), but there is also a perception that they would damage local businesses (43 per cent).

Survey respondents are three times more likely to support some money raised by charging motorists being spent locally by locally accountable leaders (62 per cent) than spent fully by central government across the country (19 per cent). There is also a strong preference (45 per cent vs 11 per cent) for local government over national government to implement pay-as-you-drive road pricing. However, there is a preference for integrating local schemes into a single national scheme with local top-ups for congestion and pollution (42 per cent) rather than separate national and local schemes (24 per cent).

“The people who are paying the revenue in their local area [should] get to see that revenue going towards the local area to be improved.”

Hillary, Ackworth

Focus group participants thought different schemes and charges in different areas on top of a national scheme would cause confusion. Those who live in or visit London were particularly keen on pay-as-you-drive if it replaced the existing Congestion Charge and Ultra Low Emission Zones, which they saw as a burden.

In terms of policy options, a national scheme with local top-ups also seems to be the preference of local government leaders. Recent research found they agree a simple and fair national road user charging system is needed that provides the opportunity to introduce local top-ups for those authorities that would like to do so. These top-ups would be applied within the same platform as the national scheme and provide funds for local transport investment, although some interviewees were concerned local top-ups could introduce unwelcome competition between regions.²⁸

In practice, how they interact would depend on the type of road pricing scheme chosen.

A smart charge (option 3) that varies by location would typically be charging top-ups in city centres as they tend to have denser public transport provision. In this case it makes sense for any pre-existing local schemes to be subsumed into a national scheme. However, our view is that **the local top-up rates would need to apply consistently across all roads and locations depending on their urban/rural classification, and not just in areas that had pre-existing schemes**. This would ensure fairness for all drivers and that the system is easily understood. As the new system is being designed, there would need to be detailed negotiations between central and local government representatives to determine the top-up rates for different locations and how any revenue generated in this way would be shared with local leaders for investment in local transport priorities. This would avoid inconsistencies where only some authorities set additional charges and possible competition between local leaders setting rates in isolation.

With a static emission-based charge where only the vehicle odometer is read periodically (option 2), there would be no location-based element or top-up. In this case, it makes sense for local schemes to remain in place so as to reflect increased congestion and pollution in city centres as well as the better availability of alternatives. They would need to continue to be applied by local authorities separately on the basis of roadside cameras.

Whichever of these options is chosen, **national and local schemes need to be compatible and consistent** – in terms of design features like the emission bands used, the technology platform used and the local top-up rates. Ideally, it would all operate through the same system, or through interoperable systems, so that the experience for the driver is as straightforward as possible, particularly for fleet operators in the logistics industry that operate across the whole country.

62%
would like some of
the money raised
to be spent locally



9. Summary and recommendations

To summarise, policy-makers of all persuasions should be assured that there is broad support for pay-as-you-drive road pricing, and the concerns of those who are unsure can be overcome to further increase support.

Britons understand the need to reform vehicle taxation, to replace declining revenue, and believe that electric vehicles should be subject to some level of taxation, just like all other vehicles. People are also attracted to the concept of being able to control how much tax they pay by driving less and having a tax-free mileage allowance. A pay-as-you-drive system therefore could be a much fairer system which is more affordable than the current system and does not penalise people who are less able to afford it.

There are a number of options for a national pay-as-you-drive system, which could be rolled out in stages:

1. Starting with a flat per-mile charge for EVs only to pilot the system, paid via regular odometer checks or automatically through built-in telematics

2. Potentially moving to a static emission-based charge for all vehicles replacing fuel duty and VED, paid via regular odometer checks or telematics, with a variable tax-free mileage allowance based on public transport connectivity

3. A smart per-mile charge variable by emissions, location and time should be the end point, integrating local charging schemes into the national scheme, paid through built-in telematics or plug-in device with enhanced privacy encryption

These are not all mutually exclusive or necessary. For example, a scheme could be piloted on EVs (option 1) before progressing straight to a smart variable charge (option 3), while giving people the ability to opt out if they prefer and pay a set emission-based annual rate at their MOT (option 2). These should be explored in detail.

The priorities for vehicle tax reform should be:

- The need to keep up with the transition to zero-emission vehicles as the main rationale
- A focus on pay-as-you-drive, 'drive less – pay less' and helping to tackle the cost of living
- Commitment to raise no more than fuel duty and VED do now, at least for a significant, set period of time
- Ring-fencing a proportion of the revenue for road maintenance and public transport
- A tax-free mileage allowance based on postcode with rural drivers receiving more
- Suitable mitigations for disabled drivers and sole traders or businesses whose livelihoods depend on driving
- An opportunity to opt out of variable per-mile charges and instead pay a fixed charge
- An arm's length body (possibly the Office for Road and Rail and/or the Office for Budget Responsibility) to set and review emission standards and charging rates annually.

A pay-as-you-drive system could be fairer in a number of ways:

- EV drivers would start contributing towards taxation like other drivers, accounting for their impact on congestion and road danger, and contributing to road maintenance
- EVs would be charged at a lower rate to sustain the financial case for switching to EV and reflect their lower impact on the environment and public health
- In replacing fuel duty for petrol and diesel vehicles, a new system would be more transparent and, by not paying VAT on fuel duty, it would present a tax cut for drivers

- A smart variable rate system and a tax-free mileage allowance would enable targeted tax cuts to specific groups needing support rather than blanket measures for all
- People on lower incomes driving older and less fuel efficient vehicles could pay less per mile
- More affluent people driving larger and more polluting vehicles would pay more
- Those with no public transport alternatives would pay less, either through a higher tax-free allowance in a static system or being charged a lower rate in a variable system
- Investing revenues in road maintenance would present a direct benefit for drivers and other road users
- Investing in public transport would enable car owners to drive less, reducing congestion for all, and support people on low incomes who cannot afford to own a car.

Our research shows that it is possible to challenge and change inherent negative public perceptions of road pricing, but doing so is a task in itself. The loss of revenue from fuel duty will become a problem in the next few years, so the next Government will need to start implementing a plan for vehicle taxation reform, or face some difficult decisions about increasing borrowing or other taxation or reducing public spending.

We recommend that this Government should establish a commission of MPs and Peers across the political spectrum before the next general election to help broker cross-party agreement on the principle need to reform vehicle taxation to keep pace with the transition to net zero and put a process in place on next steps. The cross-party commission should also start the process of reviewing policy options for reforming vehicle taxation in detail and engaging with consumer, motoring and industry representatives, and report its recommendations to Government after the next general election. The Government should then consult on the preferred way forward so that a pay-as-you-drive scheme, or at least phase one, is ready for implementation around the middle of the decade.

Conclusion

There is broad agreement that road pricing is the way forward for making vehicle taxation fairer and more fiscally sustainable as we transition to zero emission vehicles. Public opinion insights have been the missing link.

Clearly, it is only one part of the policy development process, but public opinion has the power to make or break the shift. The challenge of changing how tens of millions of drivers pay taxes is indeed a significant political risk. But failing to act on this issue in good time poses an even greater risk to public finances and public services.

Our research shows that the public understands this and is eager for the Government to start the conversation about how to reform motoring taxation. Our hope is that these research insights can help steer discussions towards a more positive outcome for all.



Appendix 1: Methodology

The research comprised quantitative and qualitative elements. The quantitative element consisted of an online nationally representative survey of 3,011 adults across Great Britain. The questionnaire was drafted by Campaign for Better Transport, More in Common and Public First. Fieldwork was carried out between 13th May 2022-22nd May 2022. The survey was conducted by Public First. Public First is a member of the British Polling Council and abides by its rules. All results are weighted using Iterative Proportional Fitting, or 'Raking'. The results are weighted by interlocking age & gender, region and social grade to Nationally Representative Proportions.

The qualitative research consisted of four focus groups to talk about pay-as-you-drive in Stroud and North Shropshire; Wakefield and Blackpool; London and Brighton; and Rother Valley and West Bromwich. Three focus groups were conducted prior to the polling to help inform the survey questions, and one focus group was carried out after the poll to help interrogate some of the findings. Participants were recruited by independent recruiters and the groups were moderated by More in Common.

Appendix 2: The seven segments

The research used the 'British Seven' segments developed by More in Common. They map the British population not according to their party, age, income or other demographic factor, but according to their values and core beliefs. For more information, see <https://www.britainschoice.uk/>

The segments are:

1) Progressive Activists (13 per cent of the population): A passionate and vocal group for whom politics is at the core of their identity, and who seek to correct the historic marginalisation of groups based on their race, gender, sexuality, wealth, and other forms of privilege. They are politically engaged, critical, opinionated, frustrated, cosmopolitan, and environmentally conscious. Often supporters of Labour, the Greens and, in Scotland, the SNP; they voted to remain in the European Union (EU). Sharing a fatalism about society with disengaged battlers and loyal nationalists – though from a very different perspective – they are demographically the youngest

2) Civic Pragmatists (13 per cent of the population): A group that cares about others, at home or abroad, and who are turned off by the divisiveness of politics. They are charitable, concerned, exhausted, community minded, open to compromise, and socially liberal. They are more likely to vote Labour and Liberal Democrat than Conservative. Sharing leftist beliefs with Progressive Activists but much less vocal about their politics, they are also a majority remain segment.

3) Disengaged Battlers (12 per cent of the population): A group that feels that they are just keeping their heads above water, and who blame the system for its unfairness. They are tolerant, insecure, disillusioned, disconnected, overlooked, and socially liberal. Less likely to vote at all and those who do are more likely to support Labour than Conservative. On the whole however, this segment is defined by its low engagement with politics and political parties; with the highest rate of non-voting in local and national elections, as well as in the EU referendum.

- 4) **Established Liberals (12 per cent of the population):** A group that has done well and means well towards others, but also sees a lot of good in the status quo. They are comfortable, privileged, cosmopolitan, trusting, confident, and pro-market. This segment best represents the average Blue Wall voter. Economically right-leaning but are socially liberal, they are a traditional part of the Conservative base, but their support for the party has fallen in recent years. Primarily living in rural areas and the South East, they voted heavily to remain in the EU and are proud of Britain's diversity.
- 5) **Loyal Nationals (17 per cent of the population):** A group that is anxious about the threats facing Britain and facing themselves. They are proud, patriotic, tribal, protective, threatened, aggrieved, and frustrated about the gap between the haves and the have-nots. This segment is the most politically volatile and best represents the average Red Wall voter. They had the largest swing from Labour to Conservative in 2019 and are most likely to say they would vote for Reform UK/The Brexit Party. They tend to describe themselves as working class, are more likely to vote than other segments and strongly supported leaving the EU.
- 6) **Disengaged Traditionalists (18 per cent of the population):** A group that values a well-ordered society, takes pride in hard work, and wants strong leadership that keeps people in line. They are self-reliant, ordered, patriotic, tough-minded, suspicious, and disconnected. The Disengaged Traditionalists are more likely to support the Conservative party over Labour, but they often stay at home on polling day. At the last election, many came out to vote Conservative to get Brexit done – however, their politics is not a core part of their political identity. They tend to describe themselves as working class and lean to the right on social and economic issues. They are the least likely to make changes in their lives to reduce emissions.
- 7) **Backbone Conservatives (15 per cent of the population):** A group who are proud of their country, optimistic about Britain's future outside of Europe, and who keenly follow the news, mostly via traditional media sources. They are nostalgic, patriotic, stalwart, proud, secure, confident, and relatively engaged with politics. They are stalwart supporters of the Conservative Party, most likely to say they are proud to be British, and respond better to Net Zero policies which protect both the environment and the economy, but they are not net zero activists.



References

1. Department for Business, Energy & Industrial Strategy (2022), '2020 UK greenhouse gas emissions: final figures',
2. Society of Motor Manufacturers and Traders (2022), 'SMMT vehicle data: Car Registrations',
<https://www.smmt.co.uk/vehicle-data/car-registrations/>
3. Society of Motor Manufacturers and Traders (31 May 2022), 'Three Quarters of a million EVs now on UK roads, but car ownership falls for second year', Press release,
<https://www.smmt.co.uk/2022/05/three-quarters-of-a-million-evs-now-on-uk-roads-but-car-ownership-falls-for-second-year>
4. House of Commons Transport Committee (2022), 'Road pricing',
<https://committees.parliament.uk/publications/8754/documents/88692/default/>
5. Office for Budget Responsibility (2022), 'Fuel duties',
<https://obr.uk/forecasts-in-depth/tax-by-tax-spend-by-spend/fuel-duties/>
6. Lam, D. (2021), 'Fuel duty decline: A technical note', RAC Foundation,
<https://www.racfoundation.org/research/economy/fuel-duty-decline-a-technical-note>
7. Department for Business, Energy & Industrial Strategy (2021), 'Net Zero Strategy: Build Back Greener', p. 156,
<https://www.gov.uk/government/publications/net-zero-strategy>
8. Raccuja, G. (2017), 'Miles Better: A distance-based charge to replace Fuel Duty and VED, collected by insurers', Policy Exchange,
<https://policyexchange.org.uk/wp-content/uploads/2017/07/Gergely-Raccuja-Miles-Better-Revised-Submission.pdf>
9. RAC (2022), 'RAC Charge Watch: The cost of charging an electric car at a public charger',
<https://www.rac.co.uk/drive/electric-cars/charging/electric-car-public-charging-costs-rac-charge-watch/>
10. Department for Transport (2018), 'Road Traffic Forecasts 2018: Moving Britain Ahead', p. 51,
<https://www.gov.uk/government/publications/road-traffic-forecasts-2018>
11. Carrington, D. (28 April 2022), 'Dirty air affects 97 per cent of UK homes, data shows', The Guardian,
<https://www.theguardian.com/environment/2022/apr/28/dirty-air-affects-97-of-uk-homes-data-shows>
12. Timmers, V. & Achten, P. (2016), 'Non-exhaust PM emissions from electric vehicles', Atmospheric Environment, 134, pp 10-17,
<https://www.sciencedirect.com/science/article/abs/pii/S135223101630187X>
13. See for example: The Climate Change Committee (2020), 'The Sixth Carbon Budget', p.46,
<https://www.theccc.org.uk/wp-content/uploads/2020/12/Sector-summary-Surface-transport.pdf>;
Bennett, H. & Brandmayr, C. (2021), 'Not going the extra mile: driving less to tackle climate change', Green Alliance,
<https://green-alliance.org.uk/publication/not-going-the-extra-mile/>;
Barrett, J. et. al. (2021), 'The role of energy demand reduction in achieving net-zero in the UK', Centre for Research into Energy Demand Solutions, p. 58,
<https://low-energy.creds.ac.uk/wp-content/uploads/CREDS-Role-of-energy-demand-report-2021.pdf>
14. RAC Foundation (2022), 'Transport price index', <https://www.racfoundation.org/data/cost-of-transport-index>
15. Department for Transport (2020), 'Decarbonising Transport: Setting the Challenge', p. 3,
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/932122/decarbonising-transport-setting-the-challenge.pdf

16. See for example Climate Change Committee (2022), 'Progress in reducing emissions: 2022 Report to Parliament', p.148, <https://www.theccc.org.uk/publication/2022-progress-report-to-parliament/>;
House of Commons Transport Committee (2022), *op. cit.*; Southwood, B. (2022), 'A New Deal for Drivers: Unleashing the power of Britain's greatest infrastructure resource', Policy Exchange, <https://policyexchange.org.uk/publication/a-new-deal-for-drivers/>;
Corfe, S. (2022), 'Miles Ahead: Road pricing as a fairer form of motoring taxation', Social Market Foundation, <https://www.smf.co.uk/publications/miles-ahead-road-pricing/>;
Lord, T. & Palmou, C. (2021), 'Avoiding Gridlock Britain', Tony Blair Institute for Global Change, <https://institute.global/policy/avoiding-gridlock-britain>;
Buckland, J. (2021), 'Green Money: a plan to reform UK carbon pricing', Bright Blue, <http://www.brightblue.org.uk/wp-content/uploads/2021/07/Green-money.pdf>; etc.
17. See for example: Smeed, R.J., & Great Britain Ministry of Transport (1964), 'Road Pricing: The Economic and Technical Possibilities', HMSO, McNally, R. (2004), 'Feasibility study of road pricing in the UK – Full report. A Report to the Secretary of State for Transport', Department for Transport, and Butcher, L. (2010), 'Eddington Transport Study', <https://researchbriefings.files.parliament.uk/documents/SN03732/SN03732.pdf>
18. Climate Change Committee (2022), *op. cit.*
19. House of Commons Transport Committee (2022), *op. cit.*
20. Southwood, B. (2022), *op. cit.*
21. Corfe, S. (2022), *op. cit.*
22. A free miles allocation has been proposed by King, E. & King, D. (2017), 'Road Miles: Miles Better, Fairer, Greener, Safer', Policy Exchange, <https://policyexchange.org.uk/wp-content/uploads/2017/07/Deirdre-and-Edmund-King-%E2%80%93-Road-Miles-Revised-Submission.pdf>
23. House of Commons Transport Committee (2022), *op. cit.*
24. In 2020, the median residence-based earnings in predominantly urban areas (excluding London) were £25,100, compared with £25,000 in predominantly rural areas - Department for Environment, Food & Rural Affairs (2021), 'Official Statistics: Rural earnings', <https://www.gov.uk/government/statistics/rural-earnings/rural-earnings>
25. Average weekly expenditure on transport costs is 14 per cent of disposable income in rural areas, while in urban areas it is 10 per cent of disposable income – Department for Environment, Food & Rural Affairs (2021), 'Statistical Digest of Rural England: Expenditure', https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/996642/Expenditure_June_2021_final_with_cover_sheet.odt
26. Department for Environment, Food & Rural Affairs (2022), 'Clean air zones', <https://www.gov.uk/guidance/driving-in-a-clean-air-zone>
27. Greater Cambridge Partnership (27 August 2022), 'Ambitious proposals to deliver world-class transport network for Greater Cambridge unveiled', Press release, <https://www.greatercambridge.org.uk/news/ambitious-proposals-to-deliver-world-class-transport-network-for-greater-cambridge-unveiled>
28. Local Government Association (2022), 'Understanding local authorities' views on a national road user charging system', <https://www.local.gov.uk/publications/understanding-local-authorities-views-national-road-user-charging-system>

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