What does the 2030 fossil fuelled new vehicle sales ban really mean to the economy, environment, and UK's 37m drivers?

7 Key Recommendations to the Government

8 Sun Wednesday, July 7, 2021 1GM

BILL FOR DITCHING FOSSIL FUEL

£1.4TRILLION COST OF CARBON ZERO

By KATE FERGUSON

DECARBONISING Britain by 2050 will cost £1.4trillion — the equivalent of £50,000 a household.

Tearing out gas boilers, cleaning up industry and switching to electric cars will all carry big price tags, a shock Treasury watchdog report warns.

Chancellor Rishi Sunak would have to impose carbon taxes to make up for the loss of fuel duty and other hits to its coffers when fossil fuels are ditched, the 242-page Office for Budget Responsibility study predicted.

Boris Johnson has vowed to reach Net Zero emissions by 2050 in a global bid to halt climate change.

But the OBR forecasts the bill will be £1.408trillion over 30 years – or £50,647 for every UK home.

The OBR reckons the state will have to find £344billion towards the cost. Yet it insisted a large chunk of the bill – £1.086trillion – will be covered by savings as cars and homes become more energy efficient and cheaper to run. That would mean a typical household playing £11,583 in three decades.

But the OBR warned doing nothing on climate change would have "catastrophic economic consequences".

Floods and other extreme weather disasters would wreak economic damage. A scramble for resources globally might also spark war and mass migration that could harm Britain.

And the OBR said that acting sooner rather than later would be more cost-effective in the long run.

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The Sun Says – Page 12

That's £50k per household

Carbon taxes . . . Rishi Sunak

£344BN Amount officials expect state to cough up for the bill

£1.09TN to be covered by cars and homes becoming more efficient

GREEN BILLS FOR NEXT 30 YEARS

- £213bn for drivers to go electric
- £35bn to create charging points nationwide
- £254bn to tear out gas boilers in homes
- £46bn to clean up industry
- £481bn to ditch fossil fuels and move to renewables

appg

THE ALL-PARTY PARLIAMENTARY GROUP
FAIR FUEL FOR UK
MOTORISTS AND HAULIERS

Fair Fuel for UK Motorists and UK Hauliers APPG - 2021

Since 2011 the APPG for Fair Fuel for UK Motorists and UK Hauliers has examined major issues that impact on UK drivers. It has been a major influencer on keeping Fuel Duty frozen since 2011.

As well as fuel taxation, other issues addressed that impact on drivers, have included congestion charges, ULEZ/CAZs, parking costs, roads investment, unfair treatment for fossil fuelled vehicle owners, solutions to lower emissions, cleaner fuel incentives, alternative technology options and transparent pricing at the fuel pumps.

The APPG will also formulate a long-term approach to the future of road taxation and a positive transport strategy for all road users.

Members of the APPG include:

Role	Name	Party
Chair	Craig Mackinlay	Conservative
Vice Chair	Robert Halfon	Conservative
Vice Chair	Sammy Wilson	Democratic Unionist Party
Vice Chair	Rosie Cooper	Labour
Officer	Peter Aldous	Conservative
Officer	Martin Vickers	Conservative
Officer	Julian Knight	Conservative
Officer	Mary Glindon	Labour
Officer	Sir Greg Knight	Conservative

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This report has been produced by the APPG for Fair Fuel for Motorists and Hauliers, with considerable editorial and research input by Howard Cox, Secretary to the APPG and Founder of the FairFuelUK Campaign. FairFuelUK is backed by the RHA & Logistics UK (Formerly FTA).

Other contributors to this report include the Alliance of British Drivers, the Motorcycle Action Group, and the Global Warming Policy Foundation.

Chairman's Introduction

This report could have been 500 pages long. Rest assured; it is not. Even so, there is so much evidence, opinion, and resentment regarding the uncalled-for 2030 sales ban of new diesel and petrol vehicles and with it the freezing of ICE technological advancement, the inequitable move to drive electric and how the Exchequer's 5th largest income stream, derived without fail each year from drivers, is to be replaced in decades to come. The £35bn Fuel Duty/VAT issue will be covered in more detail in an APPG report for the Autumn Statement.

We have put together a range of recommendations to Government that are both constructive and economically viable to help reduce emissions without hurting 37m drivers or UK's economy. For brevity, we have crystallised these issues that are unnecessarily distressing UK's 37m drivers today, into these few pages. Implicitly, we ask whether my Government's unashamedly anti-internal combustion engine policies will achieve their coveted aims?

In producing this report, we have listened to thousands of road users, from cyclists, bikers, motorists, through to our vital frontline and essential much undermined commercial vehicle drivers.

Some of the tens of thousands of their comments are included in this report. Along with the bulk of the nation, the APPG believes millions of our fossil-fuelled vehicle drivers have been ignored for too long. They too, want clean air to breathe, a fact that is all too often dismissed. No, they want lower emissions realised through political wisdom based on real science with all headline emotion removed. If the Government acts on the basis of facts, common sense, and honesty about what is deliverable and the costs, only an exceedingly small minority of vocal green zealots will rebel.

It is imperative we bring the majority of the electorate along with us in the changes we are demanding of them. Not using a ton of un-consulted millstones. It must be through consultation and consensus. That will mean compromises on all sides of the green agenda. Above all, using common sense and practical achievable solutions.

There is no downside in aspiring to reduce emissions – we all wish to leave the planet in a better place than we inherited it, but we need to apply real numbers and real science to this debate. Badly phrased highly emotive headline figures fuelled through left wing media from official scientifically tenuous reports are persistently used to terrify millions of consumers, especially parents. If we cannot even accurately understand the numbers what hope do we have to really improve our air quality in a meaningful and proportionate way?

The former Brexit Minister, Steve Baker MP, said in May 2021 **"I'm increasingly concerned about the astronomical costs of the current Net Zero plans. If they were to be carried through to their logical conclusion, it would mean the end of the comfortable lifestyles we have enjoyed for generations. Only the well-heeled will be able to afford private cars or foreign holidays. Increasing numbers of people will be unable to take for granted heating their homes."** I share Steve's concern along with many other of my Conservative colleagues. This ground-breaking report brings together the issues that for too long have been baselessly dismissed, to appease an uncompromising very well financed environmental campaigning lobby.

We have shown evidence in this measured report that the current Government Road user transport plans are at best unwise and worst of all, ill-advised. It is not too late for a change of overall policy. A change that will be supported by the majority of the electorate, businesses, and all road users for a long time to come.

Craig Mackinlay MP - Chair of APPG for Fair Fuel for UK Motorists and UK Hauliers

What do MPs and politicians say about the Government's 2030 new fossil fuelled vehicle sales ban and the push for us all to drive electric

"I am increasingly concerned that the Government's plans to ban petrol and diesel cars will prove to be economically and politically unviable. There is bound to be a huge backlash when it becomes clear to the public that a policy consensus never tested at an election will lift cars out of the reach of many while ensuring that the policy making elite continue to enjoy privileged access to travel, as they will for the imminent climate conference."

Steve Baker Conservative MP for Wycombe since 2010

"By 2030 the extra electricity needed to power electric vehicles will still come from gas - so no saving in CO2. No way of replacing the £30 billion lost fuel duty has been proposed. And meanwhile car companies will no longer invest in more efficient (and therefore lower CO2 emissions) vehicles. So this target is patently ill-thought out and will backfire."

Lord Peter Lilley, Baron Lilley, Conservative. Was a Member of Parliament from 1983 to 2017 representing the constituency of Hitchin and Harpenden from 1997 and, prior to boundary changes, St Albans.

"There is a lot of common sense in the APPG Fair Fuel Report. Greener transport needs to work for the people it wishes to attract as users. You cannot get to work or run the children to school on a government target. Government needs to explain how these changes are going to be better, popular and affordable."

Sir John Redwood, Conservative MP since 1987 for Wokingham in Berkshire. He was formerly Secretary of State for Wales in the Major government

"This policy was wrong headed from the start, dreamt up in the kitchen diners of Notting hill, with no understanding of real people's daily lives. It's clear that the switch to electric will cause more environmental damage than running clean diesel. What's more who is to say electric won't be superseded soon making this whole costly charade a waste of time and money."

Julian Knight, Conservative MP for Solihull

"My constituents are already facing big pressures on their household budgets. Now the prospect of a ban on petrol and diesel cars threatens to make driving the pastime of a privileged few. The Government urgently needs to rethink this out of touch policy, which will be bad for working families and potentially bad for the environment too."

Graham Stringer, Labour Party MP for Blackley and Broughton since 1997

"This is a serious and well-researched report that should force policy makers to face facts and to level with the British public about the costs – to them – of bans on petrol and diesel vehicles and the timescale intended for this."

Andrew Lewer MBE Conservative MP for Northampton South

"The arbitrary proposed 2030 sales ban of new diesel and petrol vehicles is one of the Government's nanny-state interventions to vainly try to achieve its unrealistic and hugely expensive Net Zero target. Unfortunately, this policy has no regard for our road users and will pile additional costs on to hard pressed consumers and businesses. "I welcome this report's recommendations – particularly regarding the establishment of a Road User Consultative Group. This way our road users and taxpayers can demonstrate clearly to Government the strength of feeling and concern about their current approach."

Philip Davies Conservative MP for Shipley in West Yorkshire

"This report's recommendations warrant serious consideration. Ministers must level with the British public about how the Government plans to replace the billions of pounds of revenue currently raised through fuel duty and the true cost of their plans. Before Net Zero was conceived the UK was facing electricity shortfalls regardless of any growth in the economy. Is boosting generating capacity from renewable sources going to be enough and will it mean huge hikes in the cost of electricity? We need a detailed independent fiscal evaluation of the cost of the government's plans including the impact on low-income families, independent garages, logistics operations and small businesses. Moreover, will the government's policy achieve substantially lower emissions, or will it principally move the environmental damage from car use to the car manufacturing process itself? This report is therefore both opportune and welcome as it examines these issues and suggests how the Government might reasonably move forward in developing future road transport policy."

Sir Greg Knight, Conservative MP for East Yorkshire since 2001, having previously served as the MP for Derby North from 1983 to 1997, and a minister in the governments of Margaret Thatcher and John Major.

"I hope the Government will heed the warnings from a growing number of concerned Parliamentarians and organisations and consider the recommendations in the Fair Fuel APPG Report. The all-encompassing push for us all to drive electric is ill-thought through, especially in light of the potential hydrogen or natural raw material alternatives currently in development, and any ban on diesel and petrol (ICE powered) car sales in 2030 will hit those in Lincolnshire and my City of Lincoln constituents hard. A change of policy and wider acceptance of alternatives is needed, and so I very much welcome this excellent APPG Report's contribution to the debate."

Karl McCartney, Conservative MP for Lincoln

"Every one of us understands the need to be better environmental custodians for our planet, we all want to be more green. But being greener doesn't mean adopting new technologies without fully understanding their own environmental impacts; it doesn't mean setting arbitrary targets without a clear roadmap of how to achieve them; it doesn't mean damaging an economy to meet ill-thought through aspirations for short term political gain which could be far better implemented with a little more forethought and planning. We don't know that we will have a national grid capable of running millions of electric vehicles, and at the same time in effectively choosing electric vehicles as the only alternative we are disincentivising research into potentially better technologies, including hydrogen fuel cells. As we continue to learn about the lifecycle of EVs and their own impact on our environment it's becoming increasingly apparent that an arbitrary target date banning the sale of fossil fuel vehicles of 2030 is just too soon. Hard working families must not be priced out of new technologies. Ordinary people want to leave the world in a better state than they found it, but that means asking them to make change voluntarily. The Government is in danger of treating what was once called Mondeo Man as an afterthought."

Andrew Bridgen, Conservative MP for North West Leicestershire

"I welcome the recommendations of this report that highlights the need for a viable move to clean fuels that does not impact adversely on the economy, drivers or businesses. We must also ensure that all road users are involved in the development of road transport strategy and so I particularly support the idea of a Road User Consultative Group. I urge policy makers to consider very carefully the recommendations of this well-researched and informative piece of work by the Fair Fuel APPG."

James Sunderland, Conservative MP for Bracknell

The ongoing COVID-19 pandemic is dominating Government attention and rightly so, however, keeping the economy solvent has to be of equal priority too. The UK's 37million drivers, the millions of constituents across the country concerned that the 2030 sales ban of new diesel and petrol vehicles will mean the freezing of ICE technological advancement, the move to drive electric and how the Exchequer's 5th largest income stream, derived without fail each year from drivers, is to be replaced in decades to come. The report puts together a range of recommendations to Government that are both constructive and economically viable to help reduce emissions without hurting 37m drivers or UK's economy. Millions of our fossil-fuelled vehicle drivers have been ignored for too long. They want lower emissions realised through political wisdom based on real science with all headline emotion removed. If the Government acts on the basis of facts, common sense and honesty about what is deliverable and the costs, only an exceedingly small minority of vocal green zealots will rebel. I am increasingly concerned about the costs of the government's current Net Zero plans. If they were to be carried out, it would mean the end of the comfortable lifestyles we have enjoyed for generations. Only the more fortunate will be able to afford private cars or foreign holidays.

Robert Blackman, Conservative MP for Harrow East, Executive Secretary of the 1922 Committee since 2012. He was also the Greater London Assembly member for Brent & Harrow between 2004 and 2008

"As a Minister for Transport, I argued that the ban should come into force in 2050. Which would allow petrol and diesel drivers time to adjust to a new regime or for fossil fuels to become even cleaner. The accelerated change agreed after my time in the ministry risks disadvantaging many small businesses and private car users. Notably in rural areas like the one I represent, where access to public transport is limited."

Sir John Hayes Conservative MP for South Holland and The Deepings

"The ban on petrol and diesel vehicles is just another example of politicians trying to show a new devotion to a new environmental doctrine, with this great sacrifice again falling on the poorest in society - not the richest. It's fine for the super-rich to buy their Tesla, but that's not the case for the just-about-managing majority who elected the Conservative Government."

See my Chairman's Summary

Craig Mackinlay MP, Chair of the Fair Fuel APPG & Conservative MP for South Thanet.

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Background

This ground-breaking report from the APPG for Fair Fuel for UK motorists and hauliers seeks to bring to the attention of decision makers that UK's 37m drivers also want clean air to breathe. But at the same time to show that current Government policies for road users, whilst on the surface seem laudable, are instead set to be damaging for the economy and the Nation's role in 'helping out' with global climate change.

As widely reported in the national media and motoring journals[1], all new conventional petrol and diesel cars and vans are set to be banned from sale in 2030. New hybrids will be given a stay of execution until 2035, on the condition they are capable of covering a "significant distance" in zero-emission mode - a term which the Government has yet to define.

After 2035, the only new cars and vans that can be sold will be pure electric, plus any hydrogen-powered cars that may exist at that point. Second-hand cars will be unaffected by the ban, however, allowing petrol and diesel cars, plus conventional hybrids without "significant" zero-emission capability, to change hands on the used market after 2030.

To help facilitate the transition from fossil-fuel cars, £1.3 billion is being invested in EV charge points for homes, streets, and motorways across England. A further £582 million is being set aside for grants to help people into EVs and PHEVs. The Government is also investing £500 million in battery development and mass production, while £525 million is earmarked for the nuclear power plants, partly to help meet the demand for electricity the growing number of EVs will bring.

This report highlights:

- ✓ Recommendations to lower emissions without banning new diesel and petrol vehicles by 2030.
- ✓ A plethora of expert opinions on recent Government edicts and their effective ways to reduce emissions and avoid economic doomsday.
- ✓ Several questions of the Government on behalf of UK's 37m drivers as to the viability and cost of the Government's unexpected target date to ban new fossil fuelled cars and vans in 2030.
- ✓ A brief 'cradle to grave' review of Electric Vehicles compared to Petrol/Diesel driven Transport.
- ✓ Whether the Government has truly recognised a fair and equitable replacement for £35bn of annual Fuel Duty and VAT.
- ✓ The largest ever survey of road user opinion that back a series of recommendations from the APPG as to meeting the needs of reducing vehicle emissions without adopting the Government's highly unpopular road user policies.
- ✓ A better way to lower vehicle emissions than using ineffective 'Pay to Pollute' policies and cliff edge vehicle sales bans.

Doing nothing is therefore the worst, and most counter-productive, option of all. The current clean air agenda harms the poor, the economy, and aspects of the environment all at once. No responsible administration should tolerate or allow that, so we commend the recommendations listed here for the Government's consideration and implementation.

At the very least a constructive economic and science-based debate is called for.

APPG Report Intentions

The APPG calls on the Government to implement the recommendations listed on page 8 -9.

The APPG's proposals to Government are supported by the majority of the UK's electorate and represent practical, common-sense approaches to future road user transport, reducing emissions and not bankrupting the economy:

Who supports Government Road Transport Polices?

In the FairFuelUK/APPG survey referred to throughout this report, just 14% of petrol and diesel drivers support the Government's Road User policies since they were elected in 2019.

Primary Transport Choice	Support	Do not Support	Do not Know
Fossil Fuel Drivers	14%	73%	14%
Public Transport	36%	46%	19%
Cyclists / Walkers	47%	34%	19%
All Road Users	18%	68%	14%

An overwhelming 7 out of 10 (68%) of all the 49,160 types of Road Users who took part in this survey, range from extremely disappointed (26%) to nearly half (47%), as being incredibly angry with Government's unilateral approach and lack of consultation on this unexpected policy with drivers, the major stakeholders and 5th largest tax contributors to the Treasury.

Furthermore, 6 out of 10 respondents from all road user types want the Government to immediately reconsider and change their policies.

Based on the largest survey of road user opinion, the APPG puts forward a series of recommendations to ensure our move to breathing cleaner air does not cost more than necessary and is achievable without a 2030 ban on the sales of new petrol and diesel vehicles.

Survey responses by Road User Type to the APPG's 7 key recommendations

Survey of 49160 UK Road Users as to what the Government should implement ASAP	Cyclists & Walkers 5288	EV Drivers 4688	Petrol & Diesel Drivers 44480	ALL Road Users 49160
1. **Set up a new road user advisory group**	35%	22%	**69%**	66%
2. **Publish cost/ benefit analysis.**	36%	21%	**66%**	63%
3. **Explain how fuel duty will be replaced.**	39%	31%	**71%**	69%
4. **Remove the threat of 2030 ban and allow vehicle clean fuel technology to evolve organically.**	27%	7%	**77%**	73%
5. **Create an impartial authoritative air quality sources watchdog.**	44%	38%	**82%**	79%
6. **Investigate thoroughly usage of fuel catalysts to lower emissions**	30%	10%	**66%**	63%
7. **Instruct Local Authorities to build dedicated cycle schemes AWAY from existing roads.**	45%	57%	**71%**	69%

The APPG's 7 Key Recommendations to the Government

Recommendation 1. The Government should immediately **remove the threat of the 2030 ban** on the sales of new petrol and diesel vehicles. Instead, they should incentivise the move to clean fuels by motivating industry and entrepreneurs to develop technologies that will not impact adversely on the economy, drivers, or businesses. In true Conservative fashion, allow the market to dictate what clean fuel technology is best and affordable for all drivers not through a very costly, divisive ineffective Government mandate.

Recommendation 2. Two thirds of drivers (66%) excluding EV owners want the Government to produce full post Covid recovery **Cost Benefit Analyses** as to the impact of the 2030 ban on the sales of new diesel and petrol vehicles. **The APPG calls for detailed independent fiscal evaluations as to the cost of pushing UK drivers to use EVs by the end of the decade.** The impact of this policy on our motor manufacturing industry, the cost of supplying electricity via the national grid in terms of both capital and ongoing costs. This report must demonstrate what will be the impact on independent garages, logistics operations, low-income families, small businesses, inflation, and jobs. To also include how long charging times will ever be practical for business and motorists, plus their effect on the economy itself. Above all, to objectively demonstrate if this policy will achieve lower vehicle emissions and be more beneficial than the cost of implementing the 2030 ban itself.

Recommendation 3. **It is critical a long-term road transport strategy is put together that benefits and unites ALL road users with an emphasis on public transport and freeing up our congested roads.** Residents, businesses, motorists are incensed with current political policies such as the discord created by Local Traffic Neighbourhood schemes and Cycle Lanes causing blockades, congestion, and deferred pollution. The APPG and FairFuelUK call on **the Government to build new cycle schemes away from existing roads.** The growing conflict in road policy is being fuelled by a laudable but mistaken belief that cycling is the ultimate transport solution. While drivers and motorcyclists pay for all road space, the recent allocation of many existing urban highways is mostly for the benefit of a few who are 'unrepresentative of the population at large'.

Recommendation 4. The Government should create a **Road User Consultative Group**, to include cyclists, motor bikers, cars, van drivers, taxis, and truckers. This vital policy advisory panel should be made up of associations and organisations who represent grass root road users, together with the APPG for Fair Fuel for UK Motorists and Hauliers but not the profit motivated commercial groups or highly financed green campaigners. Their remit to advise, scrutinise and support the Transport, Environment and Treasury Departments on all aspects of rural and urban road transport strategies, air quality plans and future vehicle taxation.

Recommendation 5. The Government should explain in future Budgets how they are to **replace the loss of Fuel Duty revenue** without increasing it for the world's already highest taxed drivers. Work with FairFuelUK and the APPG to develop a fair and equitable way to replace £35bn of Fuel Duty and VAT. All road users whatever their vehicles must pay to use our roads and highways, irrespective of their chosen 'fuel' technology. ***Please note: A detailed report focussing on the future of Fuel Duty and its replacement will be published by the APPG before the Autumn Statement 2021.***

Recommendation 6. The APPG and FairFuelUK are calling for an **Air Quality Working Party**, free from vested interests, to scientifically determine where the greatest levels of particulate, nitrogen dioxide and other 'damaging' pollutants really come from, and how to reduce them in the short to medium term. The reason is clear; currently drivers are taking an unequal and the most punitive hit on improving air quality. No other source of emissions is being asked to pay charges for their release of the same pollutants. Time for ALL polluters to take their share of fiscal punishments that until now, have been unfairly targeted on diesel and petrol drivers.

Recommendation 7. The APPG believe that **new low-cost fuel catalysts currently available here in the UK should be independently tested asap**, in order to ascertain their claimed effectiveness to reduce vehicle emissions and reduce fuel consumption. It is already a legal requirement in the State of Texas, amongst other territories, for these fuel additives to be dispensed from fuel pumps with an approved emission reducing catalyst. Using fuel catalysts, the decline in all emissions across the UK in excess of 50% with savings to drivers averaging 10% cannot be ignored. Such reductions will have huge benefit on urban air quality and encourage more consumer spending with extra tax revenue to the Treasury. Plus with climate-neutral e-fuels under development, nearly 40 million passenger cars with combustion engines in the UK could be powered in a climate-neutral manner without any technical adjustments or conversions. These solutions to lower emissions are here now and must be considered.

What do the majority of UK's Road Users really think about the 2030 ban?

To support the recommendations in this report, working closely with the highly respected (FFUK) FairFuelUK Campaign team, the APPG initiated a survey carried out May/June 2021. It was open for all to take part, via social media, supporters of FFUK and through media outlets. This poll was put in place to ascertain what UK's 37m road users want from the Government following significant policy changes from the Government. Validated UK based responses from 49,160 road users, active transport participants and interested individuals were analysed. Questions focussed on three main areas of concern:

1. The 2030 new petrol/diesel vehicles sales ban.
2. The push for UK's 37m drivers to change to Electric Vehicles.
3. A brief look at what should replace £35bn of Fuel Duty and VAT.

Survey responses broken down by primary transport choices.

Transport Choices	Type	First Choice	Rank 1st	% of 1st	Second choice	Rank 2nd	% of 2nd	Total 1&2	Rank	% of ALL
Car	FF	29648	1	**60.31%**	12704	2	**25.84%**	42352	1	**43.1%**
Walking	AT	3368	3	**6.85%**	14392	1	**29.28%**	17760	2	**18.1%**
SUV	FF	4808	2	**9.78%**	1896	7	**3.86%**	6704	3	**6.8%**
Cycle	AT	1920	5	**3.91%**	3976	3	**8.09%**	5896	4	**6.0%**
Motorbike	FF	1872	6	**3.81%**	3040	5	**6.18%**	4912	5	**5.0%**
Bus	PT	200	12	**0.41%**	3888	4	**7.91%**	4088	6	**4.2%**
HGV	FF	3264	4	**6.64%**	424	14	**0.86%**	3688	7	**3.8%**
Van	FF	1272	7	**2.59%**	1616	8	**3.29%**	2888	8	**2.9%**
High Perf Car	FF	1072	8	**2.18%**	1240	9	**2.52%**	2312	9	**2.4%**
Train	PT	160	13	**0.33%**	2000	6	**4.07%**	2160	10	**2.2%**
Other		440	10	**0.90%**	1032	11	**2.10%**	1472	11	**1.5%**
Disability Vehicle	FF	712	9	**1.45%**	552	13	**1.12%**	1264	12	**1.3%**
Taxi	FF	104	14	**0.21%**	1128	10	**2.29%**	1232	13	**1.3%**
Campervan	FF	256	11	**0.52%**	856	12	**1.74%**	1112	14	**1.1%**
Underground	PT	48	15	**0.10%**	280	15	**0.57%**	328	15	**0.3%**
Coach	PT	16	16	**0.03%**	136	16	**0.28%**	152	16	**0.2%**
Total		**49160**			**49160**			**98320**		

FF = Fossil Fuel PT = Public Transport AT = Active Transport

87% of survey respondents indicate fossil fuelled choices as their preferred transport of choice in the survey, with significantly less than 1% making public transport their primary mode of carriage. The influence of Covid lockdown cannot be understated. Active transport (walking and cycling) as a first transport choice was made up of largely walkers 6.85%. Just 3.91% chose cycling as their principal first choice in the poll.

These findings fit in with other reported statistics that cycling remains a transport choice for an exceedingly very small selection of road users.

Transport	First Choice		Second Choice		1st + 2nd	
Fossil Fuelled	43024	87.52%	23592	47.99%	66616	67.75%
Public Transport	408	0.83%	6168	12.55%	6576	6.69%
Active Transport	5288	10.76%	18368	37.36%	23656	24.06%

Should the 2030 Ban on the sales of new petrol/diesel vehicles stay?

7 out of 10 of all road users taking part in the survey said vehemently they want the threat of Government's 2030 ban of new petrol/diesel vehicle sales scrapped.

Keep 2030 Ban		NO		YES		Do not Know	
Active Transport	5288	1600	30%	3440	65%	248	5%
Fossil Fuelled	43008	32608	76%	7512	17%	2888	7%
Public Transport	424	176	42%	208	49%	40	9%
ALL Transport	**48720**	**34384**	**71%**	**11160**	**23%**	**3176**	**7%**

Over 90% of truckers, 84% of taxis, 82% of van drivers and 4 out of 5 motor-bikers want the 2030 ban shelved too.

Despite only 1 in 5 car drivers suggesting (in FairFuelUK's poll) the Government sticks to the 2030 cliff edge target ban, this figure conceals the fact: 90% of those wanting to keep to this unexpected timetable already drive an electric vehicle. When these existing EV converts are removed from this analysis, this figure drops from 1 in 5, to 1 in 8 of all car drivers still supporting this unpopular & un-consulted Conservative Government policy.

Transport Choice 1		Total	Do not keep 2030 Ban		Keep 2030 Ban		Do not know	
HGV	FF	3264	2992	**91.67%**	136	**4.17%**	136	4.17%
Taxi	FF	104	88	**84.62%**	8	**7.69%**	8	7.69%
Disability Vehicle	FF	712	592	**83.15%**	80	**11.24%**	40	5.62%
Van	FF	1272	1048	**82.39%**	96	**7.55%**	128	10.06%
SUV	FF	4808	3936	**81.86%**	560	**11.65%**	312	6.49%
Motorbike	FF	1872	1488	**79.49%**	224	**11.97%**	160	8.55%
Campervan	FF	256	192	**75.00%**	32	**12.50%**	32	12.50%
Car	FF	29648	21560	**72.72%**	6040	**20.37%**	2048	6.91%
High perf car	FF	1072	712	**66.42%**	336	**31.34%**	24	2.24%
Coach	PT	16	8	**50.00%**	0	**0.00%**	8	50.00%
Bus	PT	200	96	**48.00%**	80	**40.00%**	24	12.00%
Walking	AT	3368	1384	**41.09%**	1784	**52.97%**	200	5.94%
Train	PT	160	56	**35.00%**	96	**60.00%**	8	5.00%
Underground	PT	48	16	**33.33%**	32	**66.67%**	0	0.00%
Cycle	AT	1920	216	**11.25%**	1656	**86.25%**	48	2.50%
		48720	34384	**70.57%**	11160	**22.91%**	3176	6.52%

Key: FF = Fossil Fuelled, PT = Public Transport, AT = Active Transport

Please note: The APPG/FairFuelUK Survey results are available separately from FairFuelUK. Key findings from the poll itself are included throughout the body of this report to help illuminate the salient points pertaining to current Government Road user policies. Several more survey outcome releases will be issued to the media in the coming months following the publication of this report.

For more details, please contact Howard Cox Secretary to the APPG and Founder of FairFuelUK. Mobile: 07515421611, email: howard@fairfueluk.com

Were the electorate consulted about the 2030 ban?

4 out of 5 (79%) of ALL road users claim the Government did not consult with road users regarding introducing the 2030 new fossil fuelled vehicle sales ban. Yet, 75% of cyclists and a small percentage of drivers who currently drive electric vehicles say they WERE asked about this policy. How can that perception be? The imbalance in this survey response reflects the current divide between demonisation of internal combustion engine vehicles versus the political bias afforded towards cyclists, particularly in urban areas.

Consulted about 2030 Ban?	Total	No		Yes		Do not know	
Car (*incl EVs)	29648	24424	**82%**	4400	**15%**	824	**3%**
SUV	4808	4344	**90%**	328	**7%**	136	**3%**
HGV	3264	2992	**92%**	272	**8%**	0	**0%**
Motorbike	1872	1648	**88%**	160	**9%**	64	**3%**
Van	1272	1160	**91%**	96	**8%**	16	**1%**
High performance car	1072	728	**68%**	328	**31%**	16	**1%**
Disability Vehicle	712	632	**89%**	64	**9%**	16	**2%**
Campervan	256	232	**91%**	8	**3%**	16	**6%**
Taxi	104	96	**92%**	8	**8%**	0	**0%**
Fossil Fuel	**43008**	**36256**	**84%**	**5664**	**13%**	**1088**	**3%**
Walking	3368	1656	**49%**	1208	**36%**	504	**15%**
Cycle	1920	472	**25%**	1216	**63%**	232	**12%**
Active Transport	**5288**	**2128**	**40%**	**2424**	**46%**	**736**	**14%**
Coach	16	16	**100%**	0	**0%**	0	**0%**
Train	160	80	**50%**	80	**50%**	0	**0%**
Underground	48	24	**50%**	16	**33%**	8	**17%**
Bus	200	144	**72%**	48	**24%**	8	**4%**
Public Transport	**424**	**264**	**62%**	**144**	**34%**	**16**	**4%**
Total	**48720**	**38648**	**79%**	**8232**	**17%**	**1840**	**4%**

What road users, real people in the UK electorate are saying.

Here is a random selection from over 5000 comments sent in from survey respondents.

SJL from Barnet says: *"There has been a clear lack of valid or reliable information on this electrical ideology being pushed by a few. The consequences of significantly higher unit costs of electricity but a small point apparently forgotten."*

DE from Didcot said: *"With petrol engines getting cleaner all the time and the green cost of all electric vehicles not known, we should really assess if this ban would have any worthwhile benefit".*

MF from Stourport-on-Severn said: *"The 2030 date was clearly plucked out of the air without the government having the faintest idea whether it is realistically achievable. Furthermore, the ban is justified on the basis of a 'climate emergency' that does not exist. Most politicians have no knowledge of science so are easily duped by environmental activists, whose aims are political not environmental."*

PBW from West Bromwich said: *"This has been greatly "green" driven by those in power who don't have a clue about the daily realities for most of us. Public transport is too expensive and a joke. With my own vehicle, I can go where and when I want with a minimum inconvenience. I regularly travel to Scotland and the ONLY way I could keep my schedule is by car."*

JN from Bexley said: *"The government needs to look past its biased advisors, listen to people dealing with diesel and petrol vehicles in the real world, it's quite easy, then they will see the current emission rate is unobtainable, but with sensible work with manufactures both engines can be reworked to be better, the current emission equipment on the cars is stifling them."*

DH from Stockton-on-Tees said: *"I am a qualified environmental consultant. I drive a 14-year-old diesel car with currently 164,000 miles recorded which yesterday returned 56mpg. I am convinced that my use of mature technology where the carbon footprint is already 'accounted for' and where re-use is always better than replacement ... is far better than a new idea by legacy politicians which has neither been laid bare in a sufficient life-cycle analysis; has not had the burden of its development included; has had its dismantlability and longevity concealed; has had its pollution burden glossed over in terms of rare earth metal mining and is being forced upon us while so many low hanging fruit of a better energy-efficiency mix are being ignored."*

Has the Government considered the risks and benefits to the environment & economic impact of the 2030 ban?

Consulted on Environmental Risks and Benefits	Total	No		Yes		Do not Know	
Fossil Fuelled Transport	43008	33824	**78%**	4456	**10%**	4728	**10%**
Active Transport	5288	2128	**40%**	2424	**45%**	736	**13%**
Public Transport	424	256	**60%**	112	**26%**	56	**13%**
	48720	**36208**	**74%**	**6992**	**14%**	**5520**	**11%**

There is a belief from 45% of active transport users, (2 of 3 cyclists and 1 of 3 walkers) that the Government has indeed consulted on the environmental risk and benefits of the 2030 ban. **But only 1 in 10 fossil fuelled transport users (9%) agree with them**. The disparity and confusion continue with 83% of petrol and diesel drivers angry they have not been consulted regarding the personal economic impact of the 2030 ban.

Consulted on Economic Impact	Total	No		Yes		Do not Know	
Fossil Fuelled Transport	43008	35640	**83%**	3920	**9%**	3448	**8%**
Active Transport	5288	2168	**41%**	2416	**46%**	704	**13%**
Public Transport	424	280	**66%**	120	**28%**	24	**6%**
	48720	**38088**	**78%**	**6456**	**13%**	**4176**	**9%**

If the 2030 ban had been included in the Conservative 2019 General Election Manifesto, how would you have voted?

These survey results if translated into the actual 2019 General Election outcome would have meant 5.5m less votes to Boris Johnson.

4 out of 10 diesel and petrol drivers would have been less likely to have voted Conservative if they had known the new Government would be punishing them by introducing the 2030 ban.

This survey outcome is indicative of the significant disappointment in the Conservatives about the 2030 ban. What is clear here, the 80 seat Commons majority would definitely have been considerably less had the 2030 ban been in the Tory Election Manifesto. A wakeup call to the PM?

Transport Type	Total	More Likely	Equally Likely	I never vote Tory	Less Likely	Do not know
Fossil Fuelled	43008	6%	28%	19%	**39%**	9%
Active Transport	5288	22%	20%	40%	**13%**	5%
Public Transport	424	26%	23%	21%	**21%**	9%
Total	48720	3816	13064	10520	**17352**	3968

Will the Government's push to make us drive EVs, be a Betamax moment or more worryingly, the next diesel-gate?

Electric Vehicles: A panacea or a folly?

At the heart of the push for all of us to stop using petrol and diesel to fuel our transport choices is an obsession that Electric Vehicles and cycling are the answers to our future road travel needs.

EVs give instant torque right from the start, and are so clean and simple – so what is not to like?

Well, we must start asking the right questions by obtaining objective answers that will benefit the electorate, not panic drivers with virtue signalling speculation and inflict unnecessary levels of expense on them and our post pandemic economy.

Politicos cannot just listen to well financed emotional environmental lobbying groups. There must be a long-term road user plan put in place, involving the hitherto ignored input from the main road using stakeholders: The part of the electorate that generate £50bn per year to the Exchequer. **UK's Drivers!**

At the moment all we seem to hear and read, in an anti-car dominated one-sided agenda are misleading reports that petrol or diesel is bad, and electric powered vehicles are the ultimate transport solution that will save the planet.

Ross Clark for the Daily Mail said [6]: "Tony Blair's government tried as hard as it could to persuade us to switch to diesels, by cutting duty on the fuel and introducing a new system of vehicle excise tax based on carbon emissions per mile. Those who, like millions of us, took the bait are now treated as environmental vandals, effectively banned from driving in some cities by the imposition of eye-watering charges.

Now it is the turn of electric car-buyers to fall for the Government's sales patter. Go for a new, pure electric vehicle with a list price of £35,000 or lower and the Government will subsidise your purchase to the tune of £2,500."

Colin Andrews, automotive engineering consultant for CSA Performance in his excellent article [2] pondered the future of the automotive industry and along with members of the Fair Fuel APPG, (FFUK) FairFuelUK, (ABD) Alliance of British Drivers, (MAG) Motorcycle Action Group and the (GWPF) Global Warming Policy Foundation, asks whether electrification of vehicle transport is really the way forward.

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Boris Johnson's green drive to make UK carbon emissions net zero could add astonishing £469BILLION to national debt, warns OBR economic watchdog

- OBR watchdog has warned over UK economy's exposure to 'catastrophic' risks
- Report says that major disasters seem to be becoming more frequent in world
- Huge debt mountain leaves the UK more vulnerable to shifts in interest rates

By JAMES TAPSFIELD, POLITICAL EDITOR FOR MAILONLINE
PUBLISHED: 12:35, 6 July 2021 | **UPDATED:** 15:21, 6 July 2021

Colin Andrews said [2]: "The vehicle manufacturing industry should stand proud of its achievements, rather than allowing itself to be bounced into doing the wrong thing. The consequences will be more dire than diesel-gate. We do not need electric cars. We've had the answer for decades."

Boris Johnson's plan [26] to make the UK 'net zero' in terms of carbon emissions by 2050 to help fight climate change will add £469billion to national debt, the economic watchdog warned today.

A global picture of increasing electricity demand

The IEA's Global Energy Review 2021[3] says the world's energy demand is set to increase by 4.6% in 2021, more than offsetting the 4% contraction in pandemic year 2020 and pushing demand 0.5% above 2019 levels. Almost 70% of the projected increase in global energy demand is in emerging markets and developing economies, where demand is set to rise to 3.4% above 2019 levels. Energy use in advanced economies is on course to be 3% below pre-Covid levels.

In contrast, natural gas demand (an efficient energy resource largely made up of methane, a compound with one carbon atom and four hydrogen atoms) is set to grow by 3.2% in 2021, propelled by increasing demand in Asia, the Middle East, and the Russian Federation ("Russia"). This is expected to put global demand more than 1% above 2019 levels.

In the United States – the world's largest natural gas market – the annual increase in demand is set to amount to less than 20% of the 20 billion cubic metres (bcm) decline in 2020, squeezed by the continued growth of renewables and rising natural gas prices. Nearly three-quarters of the global demand growth in 2021 is from the industry and buildings sectors, while electricity generation from natural gas remains below 2019 levels.

Coal demand is on course to rise 4.5% in 2021, with more than 80% of the growth concentrated in Asia. China alone is projected to account for over 50% of global growth. Coal demand in the United States and the European Union is also rebounding but is still set to remain well below pre-pandemic crisis levels. The power sector accounted for only 50% of the drop in coal-related emissions in 2020. But the rapid increase in coal-fired generation in Asia means the power sector is expected to account for over 80% of the rebound in 2021.

The majority of the increase in electricity generation from fossil fuels worldwide is paradoxically likely to be provided by coal-fired power plants, with their output expected to increase by 480 TWh.

Due to upward pressure on gas prices, natural gas benefits to only a small extent (+1%). In the United States, where coal-fired generation dropped by around 20% in 2020, we expect about half of this loss to be reversed in 2021 – as coal-to-gas switching is unwound in some parts of the country. As a result, gas-fired generation falls by almost 80 TWh in 2021 in the United States.

Well over half of the increase in coal-fired electricity generation in 2021 is anticipated in China. Although representing about 45% of additional global renewable generation, around half of the 8% increase in electricity supply in China is provided by fossil fuels in 2021, pushing generation from coal in China up by 330 TWh (or 7%) on 2019 levels.

In India, which is expected to have the second-largest absolute demand growth after China, 70% of additional electricity demand in 2021 will be covered by thermal generation – almost all from coal.

Fuel for thought

UK FIRES led by Professor Julian M Allwood FREng at Cambridge University said in his 'Absolute Zero' Report Copyright ©2019: "If we only used electricity, delivering all the transport, heat, and goods we use in the UK, would require 3x more electricity than we use today. If we expand renewables as fast as we can, we could deliver about 60% of this requirement with zero emissions in 2050. Therefore in 2050 we must plan to use 40% less energy than we use today, and all of it must be electric."

Can our national grid cope with the EV Charging demand in 2030 and beyond?

To generate the electricity to power our vehicles and also to heat our homes by 2040 we will need to double, NO! triple our generating capacity in the UK. By 2050 it is estimated that the UK will only have 60% of the electricity supply necessary to keep the current number of cars on the road. Even if they were all electrified, a huge reduction in private vehicle ownership will have to take place. Is that the ultimate aim, to curtail freedom of transport choice?

Is that dictatorial direction really a Conservative Government's political goal, under the guise of improving our health, and by affecting UK drivers' rights to decide on their own modes of transport?

Can the thrust into renewable based energy sources cope with the impossible political push for us all to drive electric in 2030?

Currently, on average, less than 25% of our electricity is generated by renewables. We are decommissioning fossil fuel stations [42%] and no one is investing in Nuclear [14%].

It has taken us 20 years to generate only 25% of our current needs from wind and solar, despite the Chancellor pledging £20m to offshore wind.

How are we going to generate 175% or more of our needs from renewables in the next 20 years, assuming Fossil fuels and Nuclear are zero?

Wind industry would need to be prepared for such a significant growth in the wind market over the next three decades. Annual capacity additions for onshore wind would increase more than four-fold, to more than 200 GW per year in the next 20 years, compared to 45 GW added in 2018. Even higher growth would be required in annual offshore wind capacity additions – around a ten-fold increase, to 45 GW per year by 2050 from 4.5 GW added in 2018. [4]

To manufacture the world's demand for wind turbines, up to 2050, will require 3200m tonnes of steel [70% of the current world steel production] plus 310m tonnes aluminium and 40m tonnes copper. In addition, erecting them takes 15X the concrete, 90X the aluminium and 50X the copper that would be used in the equivalent fossil or nuclear plants. Either there will not be enough steel (we will be importing more too, due to the production demand that can't be met here in the UK) to make high rise buildings, or bridges or cars or ships. The lights will go out, our electric car batteries will be flat, or our home heating will not come on.

You cannot build an entire reliable power grid around wind and solar power to fuel the replacement energy source of fossil fuelled vehicles.

Manufacturing, installation, and maintaining offshore windfarms creates a lot of CO_2, which being additional to the existing baseload power stations, may well result in more CO_2 being created than they save over their lifetime. Early offshore windfarms are already indicating lifespans significantly less than anticipated. Solar panels use toxic materials. Is the manufacturing process being properly scrutinised? What assurances can the manufacturers give that those environmentally damaging emissions are contained? How durable are they in service to ensure no toxic leakage into the ground beneath them? Once they have expired, are the remains going to be recycled? While mandating responsible environmental standards would be prohibitively expensive.

Banning the Internal Combustion Engine (ICE) – **The Figures simply do not add up!**

Reducing UK's dependency on petrol and diesel by 75% will be catastrophic both practically and economically. And will not deliver net zero any quicker.

The National Grid says it is confident that it is 'suitably robust to cope with the forecast uptake in electric vehicles' from 2030. On all available evidence, the public are being 'sold a pup'. The cliff edge ban on diesel and petrol new vehicle sales announcement has sent alarm bells ringing about the resulting huge rise in demand on the electricity grid in the run-up to 2030 and beyond, as more motorists are forced to switch to plug-in cars.

So, is the Government sleep walking into a self-induced economic catastrophe, just to appease a fashionable environmental ideology?

A wide scale move to renewable energy has yet to be achieved and the introduction of 'smart grids' to retain energy and increase electricity supplies when called upon remains in its infancy. This will raise serious concerns about the network's ability to cope when thousands of vehicle owners plug their cars in to charge at the same time, which will be a common occurrence overnight.

UK's power generation and energy storage capacity are woefully inadequate, relative to the EV charging demands proposed to be placed on it. Commenting in Local Transport Today in June 2020, Prof Kelly said: "C*onsider Dinorwig power station (pictured), the biggest hydropower energy storage plant in the UK. If all UK cars were battery powered, the nine gigawatts of energy stored behind the dam would be capable of recharging about 60,000 of them, or about 0.25 per cent of the UK fleet." ...If all vehicles have to be electric, "something of the order of 70 per cent of Britain's entire existing electricity supply capacity will be needed"*[5].

Compounding the problem, UK politicians are perhaps placing too much faith in the two least reliable renewable energy sources: wind and solar. These require conventional backup, capable of powering the entire UK when there is no wind or sunshine. So, the 'renewables' are essentially superfluous. The emissions they create in their manufacture, operation and maintenance are additional to the UK's baseload power output, while actually delivering extraordinarily little power annually per UK household.

Paradoxically, this could easily make offshore wind, carbon positive!

With operating voltages about a tenth of the onshore grid, transmission losses are much higher. Likewise, solar is woefully inefficient, vast panel arrays being needed to deliver useful output. The panels again rely on exotic materials and highly energy-intensive extraction processes for their manufacture. Given their finite life, what are their disposal arrangements?

The National Grid's Deception

A big thanks to Jeff Molyneux, a very well-researched member of the public, one of hundreds who have done the numbers. Here is his reasoned summary analysis of what the enforced 2030-2035 ban means. FairFuelUK and the ABD have also analysed the economic consequences of dumping ICEs and concur with Jeff's prodigious cost conclusions shown here, to all our lives.

The figures are simply staggering and will bankrupt UK Plc.

The Government's unilateral decision to commit UK to 75% reduction in carbon by 2030-2035 will increase our national debt by £2.17 trillion to: £3.5 trillion - that's a 57% increase – AND worse still, if we use renewables, it will be even higher. Here are the numbers.

- ✓ 2020 Consumption of petrol, diesel, bio diesel, bioethanol was 30,000,000 metric tonnes per year or equal to 30,000,000,000 kilos.
- ✓ A 75% reduction target by 2030 -2035 or whatever target date is chosen, means finding enough energy to replace 22,500,000,000 kilos of fuel per year.
- ✓ Petrol energy density is 47.5 MJ/kg and 34.6 MJ/litre; the petrol in a fully fuelled car has the same energy content as a thousand sticks of dynamite. A lithium-ion battery pack has about 0.3 MJ/kg and about 0.4 MJ/litre. Petrol thus has about 100 times the energy density of a lithium-ion battery.
- ✓ The highest energy content fuel is hydrogen, which is also the simplest chemical component in existence. Petrol, derived from refining crude oil, contains much more energy than coal (twice than the lower grade bituminous) or wood (three times).
- ✓ The average energy density of the fuels: petrol, diesel, bio diesel, bioethanol is 12,500-watt hours per kilo, that is 281,250,000,000,000-watt hours/year = 281.25 trillion-watt hours/ year.
- ✓ Considering one nuclear power station generates about 4twh/year, means 70 nuclear power stations are required to offset the 75% reduction in petrol and diesel.
- ✓ A nuclear power station costs £22 billion, so 70 nuclear power stations = £1,540,000,000,000 (£1.54 trillion) - UK national debt in April 2021 was £2.17 trillion.

> *SL from King's Lynn said: "A couple of years ago, the anti-motoring Transport for London stated that 27 new nuclear power stations would have to be built to power all electric transport, the Government is struggling to get 1 completed, meanwhile in the last few weeks, the laughable wind power that they dream is going to do the job has, for a 3-week period, just about managed 1% of the UK's needs. Electricity prices will go through the roof, industry will collapse, and people will suffer and die because of the cold, not to mention the devastating effect on millions of jobs."*

16,000 additional wind turbines required to power the British EV fleet.

Before Net Zero was conceived the UK was facing electricity shortfalls with the "lights going out" any time soon regardless of any growth in the economy. It is pertinent to reflect in recent years in Germany too, they are having to keep conventional generating capacity online fully fired up to replace failing "renewable" sources when there were too many clouds, insufficient wind or not enough sunshine at a cost of €billions.

According to Professor Jack Ponton of Edinburgh University, an additional 16,000 wind turbines covering 90,000 square kilometres (35,000 square miles) will be required to charge Britain's electric cars if Britain converts to an all-electric car fleet.

Wind farms would need to 'cover whole of Scotland' to power Britain's electric vehicles.

"The most detailed calculation says we'd be looking at five Hinkley nuclear stations to run this. It would be the best way, the most efficient way to get electricity because nuclear power stations can run 90 per cent of the time." Professor Ponton.

Professor Ponton [10] said: "I've seen three different estimates for the amount of new generating capacity that we would need if we're going to have all the cars in Britain running on electricity.

"If you want to do this with wind turbines, you are talking about 16,000 more wind turbines, four times as many as we have at the moment, and I've estimated that would occupy some 90,000 square kilometres, which is approximately the size of Scotland."

Impact Analysis of Level 2 EV Chargers on Residential Power Distribution Grids

Large scale Electric Vehicles (EV) penetration is coming with a stupendous energy demand that raises much concern in the power sector. The impact of this demand is mostly notable at the distribution side as an outcome of EV users home charging preferences.

Currently, most EVs charge their batteries through a mains level 1 charger at home. However, the shorter charging times and the declining prices of faster chargers favour a switch from level 1 into level 2 chargers at residential premises.

A 22kW charger is the fastest charger you can get for the home, but to achieve this the charge point will need to be three-phase compatible and use what's called a three-phase electricity supply. In addition, the car itself will need to be able to accept 22kW.

As a ramification, this will cause a lamentable peak in the residential load profile, and consequently power utilities will face the impact of elevated number of level 2 chargers with such uncontrolled EV charging.

A 50% EV penetration for example along with 50% level 2 chargers' deployment may create an undesirable situation on the distribution network. The collected results show that available electricity power pricing techniques cannot maintain the voltage level over minimum desired threshold especially during peak times. In other words, power outages are inevitable.

The National Grid – An expert perspective from the GWPF

John Constable is the energy editor of the Global Warming Policy Foundation.

"Steadily rising costs since 2002, and two major events in the last few years, one instantaneous and one still ongoing, have exposed the underlying and increasing weakness of the United Kingdom's renewables-dominated electricity supply industry, requiring insupportably large injections of additional resources to patch the system and secure supply.

Since 2002, when renewables were introduced on a large scale, the cost of balancing the grid has risen from £367 million to £1.5 billion per year. This is largely due to measures to manage the intermittency of renewables, particularly wind and solar. Grid expansions, such as the £1 billion Western Link, to connect up far-flung windfarms, are also adding to consumer bills.

In spite of this expenditure, in August 2019 a lightning strike on the high voltage grid caused a loss of supply in London and other places affecting 1 million customers for over an hour, with knock-on effects that continued for weeks. Lightning strikes are common events and in a robust system would pass almost unnoticed.

This spring and summer, low demand resulting from the Covid-19 lockdown has further exposed the fundamental inflexibility and weakness in the UK electricity system. Measures to address the risks arising from the presence of uncontrollable renewables generators at times of low load may cost as much as £700 million over the period April to August alone.

In response, National Grid has invoked the possibility of compulsory and uncompensated disconnection for smaller generators and introduced a new scheme to encourage flexibility in the renewables sector, but these measures will save only £200 million, leaving a £500 million bill still to be paid.

Even this is doubtful. Management costs over the 22–25 May Bank Holiday 2020 weekend amounted to over £50 million, including £18.9 million to reduce large-scale wind output, and up to £7 million to switch off smaller, 'embedded' wind and solar generators. It is likely that these costs will have to continue for some time after August.

These measures are at least doubling the cost of supplying a unit of electrical energy to a consumer.

Generators and suppliers are unable to quickly increase their prices to recover this cost and they have successfully lobbied Ofgem to defer the bill until 2021–2022. This will further increase prices paid by consumers, who are already burdened by £10 billion per year of renewables subsidies. Post-Covid, these costs are insupportable.

In order to avoid prolonging and deepening the post-Covid recession, Government should immediately seek to reduce electricity system costs by suspending renewables support and instead should adopt a cost-minimisation policy focused on nuclear and on gas."

Why are the costs of going Net Zero being hidden from the public?

The Global Warming Policy Foundation (GWPF) published a short study [24] of the emissions abatement costs revealed in the UK Energy White Paper, Powering Our Net Zero Future.

GWPF shows that the UK Government has prepared a full estimate of the costs of decarbonising the electricity supply industry, but has only published fragments, amounting to about 10% of the total, and has buried them in an appendix to an annex to the White Paper.

Even from the limited information so far published by Government, it is clear that the costs are extremely high, many times higher than the harm done by carbon dioxide – the so-called "social cost of carbon".

Furthermore, the Government's estimates are critically sensitive to the cost of wind power, about which Government is unrealistically optimistic. An empirically grounded assessment of wind power costs suggest that the costs required to deliver Net Zero by 2050, with demanding interim milestone targets for 2030, will be extremely high, well in excess of £250/tCO2e (tonnes of carbon dioxide equivalent) at least five times the mainstream value for the social cost of carbon. Costs at this level imply a total annual abatement cost in 2050 of up to £80 billion a year. This would, almost certainly, make the electricity on which Net Zero depends to decarbonise heat and transport essentially unaffordable.

Dr John Constable, GWPF energy editor, and author of the study, said: "The long-awaited Energy White Paper is long on graphic design and sales talk and very short on convincing economic reasoning. The public is being asked to take their flashy Net Zero plans on trust, but no sensible person will do so. The risks of getting this wrong are too great. BEIS (Department for Business, Energy and Industrial Strategy) appears to be hiding something. Why?"

It is not just drivers; it is all of us that will have to pay.

Duncan White from the Alliance of British Drives rightly points out: "The costs of Net Zero have been calculated by Andrew Montford from the GWPF, an investigative author into climate change and associates Professor Michael Kelly, Colin Gibson and Capell Aris: The cost of electricity per unit will have to triple. The cumulative cost of carbon-free electricity generation to 2050 will be around £1.4 trillion more than an electric grid based on gas generation which averages out at about £50,000 per household.

In the Spectator, Andrew Montford articulates: "Do politicians have any idea of where they are taking us? Or does their thinking on energy policy only extend to posturing and pandering to environmental pressure groups? They cannot keep on like this forever. Eventually, as the bills mount and the reality of energy rationing hits home, the public will turn on them. And this could be sooner than you think. BEIS hopes to clear the way for the grid to control appliances in homes by 2025."

"The next election could be a good one to lose."

Electric vehicles – Quick Facts

Thanks to Mark Hayward an avid Alliance of British Drivers supporter along with FairFuelUK they have sourced unequivocal facts about Electric Vehicles (EVs).

- ✓ The production of an EV requires more energy than a conventional car, its industrialisation is 3-4 times more energy intensive than a conventional fossil fuelled car.
- ✓ In its lifetime, assuming the same power generation split as above, an EV will generate 32 Tonnes of CO_2 versus 60 tonnes for a conventional car. For EVs with longer range [500 miles] they will generate 40 tonnes.
- ✓ The energy consumption of an EV over its lifetime is equivalent to a diesel car.
- ✓ 40% of the cost of an EV is its batteries and account for 25% of its weight.
- ✓ The effective life of an EV is 1/2 that of a conventional car because the batteries degrade, replacement will be over £10,000.
- ✓ Currently there is no recycling facility for these batteries, nor is there a mass production facility outside China, where 80-90% of demand is produced.
- ✓ So, if an EV still generates around 30 tonnes of CO_2 but lasts 1/2 of the life of a conventional car we would have had to buy 2 EVs for every conventional car [no wonder the car manufactures are all going electric!]
- ✓ Importantly EVs contain 20-25 lb of rare earth metals which is twice the amount used in conventional cars.

Rare Earth Metals

Our modern digital age demands enormous amounts of data to be processed in smaller and smaller devices at greater speed. Whether it be mobile phones, iPads, laptops, watches, cars, electric car batteries, energy efficient light bulbs, networks, TVs, solar panels, or wind generators they all rely on minute quantities of rare earth metals to make them work. In fact, without them we could not have wind turbines as the motor weight would be too great.

The irony is that extracting these metals is anything but green and their extraction is highly polluting. Once used in products their amounts are so small that recycling is difficult and uneconomic. In consequence we are on a path of continual rare metals extraction with its associated pollution.

The rare metals in question include such exotics as germanium, antimony, beryllium, and niobium to name a few. The worst thing is they are called rare, (the clue is in the title), because they appear in exceedingly small quantities. For example, it takes 8½ tonnes of rock to extract 1 kilo of Vanadium, 50 tonnes of rock for 1 kilo of Gallium and 1200 tonnes of rock for 1 kilo of Lutecium. Imagine the energy required to extract these quantities.

Often these metals are found closely related to Uranium and radioactive metals so their extraction can be hazardous. In addition, copious amounts of water, purifying one tonne or rare earths requires 200m^3 of water, along with sulphuric, nitric and hydrochloric acids.

This makes the industry one of the most toxic in the world. These acids are either poured into the ground or held in large lakes. Most of this takes place in China where there is little regard for human working conditions, pollution control or dumped waste.

The western world has taken the decision not to be involved in this 'dirty' rare earth extraction but export the problem to China who has positioned itself as the major world supplier.

The legacy for China is obvious; it is the biggest emitter of green - house gases, 10% of its arable land is contaminated by heavy metals and 80% of its ground water is unfit for consumption.

Other less developed countries in Africa and S America want to get on the rare earth gravy train and are striving to exploit the associated economic boom.

With the world going 'green', rare earth production needs to double every 15 years meaning that over the next 30 years we will extract more minerals from the earth than the human race has done in 70,000 years.

Green Energy: Not only do wind turbines require rare earths but Solar Panels do as well. Each panel generates 70Kg of CO_2 in manufacture. World demand will require an increase in production of 23% over the next few years so that 10Gw of panel power can be produced each year. This will generate 2.7bn tonnes of CO2, the equivalent of 600,000 conventional vehicles.

The Second-hand car markets.

If one assumes that the life of a modern car is up to 20 years then by 2050 all 60m cars in Britain should have been replaced by electric, apart from a few classic and historic vehicles. On average 2m new cars are sold every year in the UK but about 8m second-hand cars are sold so the used market is 4 times that of the new. The majority of these traded cars are 9+ years old which means the average price paid is around £6700. This is in line with the depreciation estimate of a car being worth only 20% of its new value after 10 years.

The reason is probably obvious, not everyone can afford a new car. EVs are more expensive when new but the batteries may only last about 5-10 years, so by the time they would come within the reach of a second-hand buyer they could be poor value. Depending on what you read, motor manufacturers think batteries could last 20 years, but others think 5-10 as their capacity degrades.

Buying a second hand EV could be difficult as buyers may be misled regarding it useable battery capacity and left with a hefty bill of tens of £000s to replace the batteries in a car which is simply just not worth it.

According to the British Independent Motor Trade Association (BIMTA) around 20% of used cars are exported from the UK to developing countries. This will give the UK the opportunity to export the battery recycling problem! Hardly a planet friendly gesture!

The chances of replacing all conventional cars with electric is therefore a political pipe dream as it is most likely the public will struggle on with their conventional cars, unless electric cars become cheaper, last longer or can be easily recycled.

An alternative perspective from an Alliance of British Drivers supporter

Mark Hayward said: "We do not really need driverless cars, or ever more complicated cars which tell us we have drifted over the white line, are WIFI enabled, have cameras in every corner and sensors in every orifice."

"My wife's Morris Minor has an engine, seats, brakes, and steering. It gets us from A-B maybe a little longer than a modern car, but it is easy to fix, is already built with not a computer or any electronics in sight."

"We should stop building all these modern disposables electronically controlled, unsustainable modern boxes on wheels and concentrate on making spares for cars 20 years+ old so we can keep them on the road. Cuba managed this admirably! These vehicles generated their CO_2 in production 20+years ago. Let's find some technology to capture their exhaust emissions rather than raping and polluting the earth still more in the name of 'Going Green'."

"In the words of David Attenborough 'we should not waste a thing' but the green policies of our Govt are flying in the face of this advice."

Life Cycle Analysis of Battery Electric Cars

Battery Considerations – The Polestar Study

Polestar the Volvo's EV spin-off business boss Thomas Ingenlath said: "Car manufacturers have not been clear in the past with consumers on the environmental impact of their products. That's not good enough. We need to be honest, even if it makes for uncomfortable reading." Summary of the Polestar Study [7]

Thanks to the Alliance of British Drivers for this Polestar Life Cycle Analysis of Battery Electric Cars

The Government should NOT pursue their current policies which are likely to inadvertently increase the burden of CO_2 emissions.

Continued use of the existing petrol (ICE) Internal Combustion Engine fleet is a particularly good option from a carbon (LCA) Life-Cycle Assessment analysis as the carbon impact of continued use of the existing fleet is broadly equivalent to a (BEV) Battery Electric Vehicle, using the European energy mix.

While 200,000 km has been selected in the Polestar study, ICE (internal combustion engine) cars can have much longer life without needing powertrain replacement, and there is already an active recycling market for components including the powertrain for these vehicles. It is not unusual to see taxis with 500,000 miles (800,000 km), and over a million miles for HGV vehicles is not uncommon.

The Polestar study acknowledges that the battery pack for a BEV (Battery Electric Vehicle) represents a significant carbon investment, with the battery pack accounting for 55% of the carbon impact of the total materials for an ICE car.

BEVs suffer from reduced capacity due to age and use which shows as a reduction in driving range over time and will make them less attractive to used car buyers. Software changes could allow some limited recovery.

Energy replenishment for a BEV is slow compared to ICE/H2 (petrol/diesel/hydrogen), which makes them inefficient for longer journeys. Use of fast chargers can also reduce battery life.

BEV batteries at end-of-life currently present significant challenges. There are technical problems, to which the economic value net of costs of recovered materials are another. Consequently, the end-of-life route is largely for deployment into domestic and business environments for energy storage. The future ability of these markets to absorb the volumes created by BEV are uncertain.

Another consequence of BEV's is that because of the battery they tend to be heavier, typically 20%. This leads to greater wear on roads, tyres & emissions of particulate matter from general use & braking.

Battery Materials Sourcing Concerns, Human Rights, Child Labour. These major issues are at the heart of numerous and serious concerns around ongoing physical availability and scarcity of various raw material components for BEV's.

The following is a verbatim extract from a paper published in Nature in 2019 where material availability is being discussed.

Of greater immediate concern are cobalt reserves, which are geographically concentrated (mainly in the politically unstable Democratic Republic of the Congo). These have experienced wild short-term price fluctuations and raise multifarious social, ethical, and environmental concerns around their extraction, including artisanal mines employing child labour. In addition to the environmental imperative for recycling, there are clearly serious ethical concerns with the materials supply chain, and these social burdens are borne by some of the world's most vulnerable people.

Given the global nature of the industry, this will require international coordination to support a concerted push towards recycling LIBs (Lithium-ion batteries) and a circular economy in materials.

In addition to cobalt, which is clearly one of the key components, other materials may also need to be sourced from less democratic parts of the world, including China, which is currently the subject of global political criticism in particular, for its treatment of Uighur Muslims.

Lazy economics

It is well known that numerous Chancellors have seen drivers, in general and road fuel duty in particular as attractive targets for increased taxation. FairFuelUK has been instrumental in keeping Fuel Duty frozen for over 10 years. But UK drivers remain one of the highest taxed in the world. **(See table: Feb 2021: Fuel Tax take for EU and UK)**

Rank	2021 Tax Take	Petrol % TAX	Diesel % TAX	Tax Take Average
1	UK	65%	66%	65.3%
2	Italy	67%	63%	65.3%
3	France	65%	64%	64.5%
4	Ireland	66%	61%	63.5%
5	Netherlands	68%	58%	62.9%
6	Belgium	63%	62%	62.5%
7	Portugal	65%	58%	61.4%
8	Germany	62%	60%	61.2%
9	Finland	67%	56%	61.1%
10	Greece	67%	53%	60.3%
11	Denmark	61%	59%	60.2%
12	Slovenia	61%	60%	60.1%
13	Latvia	61%	57%	58.7%
14	Czechia	63%	54%	58.1%
15	Sweden	65%	51%	58.1%
16	Slovakia	61%	53%	57.0%
17	Austria	60%	54%	56.8%
18	Croatia	60%	53%	56.7%
19	Lithuania	59%	53%	55.8%
20	Malta	56%	54%	55.3%
21	Estonia	61%	50%	55.0%
22	Cyprus	56%	53%	54.4%
23	Bulgaria	56%	52%	54.3%
24	Spain	56%	52%	53.7%
25	Luxembourg	59%	47%	53.1%
26	Hungary	54%	52%	53.0%
27	Poland	54%	50%	52.2%
28	Romania	53%	49%	51.1%

Without contemplating the significant economic impacts, it appears obvious that any future plans to increase road fuel duty in an effort to penalise or dis-incentivise continued use of ICE (Internal Combustion Engine cars could cause an increase in emissions, the opposite of the intended policy.

Similarly, mention is often made of scrappage schemes to encourage renewal of the fleet. It should be obvious by now that though such schemes have the benefit of increasing demand for new cars, in an environment where there is manufacturing overcapacity, the likely practical impact is a short-term increase in CO_2E from manufacturing.

This can be viewed as a carbon debt, which will take a number of years to pay back.

Range anxiety for new owners of BEV's becomes exaggerated as the available range reduces with use and age. This may affect desirability on the used market and shorten useful life. See: Reasons for reluctance to convert to an EV.

The shift to renewables has been underway for some time. History tells us that delivery is much harder to achieve than expected. There is no reason to take a different view as we move through the 2020's, especially as a significant proportion of baseload nuclear generating capacity comes to end of life and is decommissioned.

The truth is that the generating capacity simply does not exist. Beyond generating capacity, significant investments in grid capacity are also required to deliver all the extra electricity needed for BEV. This needs to be sized to meet **peak** demand, not average levels.

The LCA analysis performed by Polestar does not include the carbon intensity of building new BEV factories or supply chain facilities that may be required, as declared on page 13. Neither is the carbon intensity of building and installing new charging infrastructure for BEV whether domestically, at the roadside or the workplace factored in the evaluation. As construction has a high carbon footprint, we suggest there may be significant carbon costs omitted from existing evaluations, which should be considered.

Finally, the consequences for human rights from the manufacture of BEV batteries should be contemplated very seriously, alongside strategic geopolitical considerations, in addition, and perhaps with greater priority than the LCA analysis. See Green Killers: Congo's Miners Dying to Feed World's Hunger for Electric Cars

Life Cycle Assessment in the automotive sector: a comparative case study of Internal Combustion Engine (ICE) and electric car

From a Study carried out by Francesco Del Peroa, Massimo Delogua, Marco Pierinia from the Department of Industrial Engineering, University of Florence, Italy [8]

"*The study provides a comparative environmental assessment of a gasoline turbocharged ICEV and a Lithium-ion BEV by means of the LCA methodology; the analysis deals with the entire LC of the vehicles and the assessment is based on a wide range of impact categories to both human and eco-system health.*

Unlike most of literature works, the inventory of the production stage is mainly based on primary data while the consumption during operation is determined through a dedicated simulation model reproducing real car driving conditions in order to reduce the uncertainty as much as possible.

Results of the impact assessment show that the BEV allows achieving significant impact reduction in terms of climate change thanks to the absence of exhaust gas emissions during operation; the investigation of different grid mixes for electricity production shows that this advantage significantly grows at increasing share of renewable sources.

On the other hand, the manufacturing of BEV has a greater load with respect to ICEV, especially for the large use of metals, chemicals and energy required by specific components of the electric powertrain such as the high-voltage battery.

The other considered environmental impacts (acidification, human toxicity, particulate matter, photochemical ozone formation and resource depletion) result higher for the BEV than the ICEV, primarily due to the major environmental loads of powertrain construction and manufacturing.

In the light of previous considerations, it appears clear that the assessment of electric cars cannot be performed using a single indicator, but it should be rather based on a more complex evaluation system.

For this reason, market penetration of BEVs must be accompanied by a cautious policy which takes into consideration all the aspects of the lifecycle management. To date electric mobility appears as an effective strategy for reducing GHG (greenhouse gas) emissions in regions where electricity is produced from sources with limited contribution of fossil sources.

However, the production phase represents the main barrier for achieving the full maturity of this technology in any comparable environmental perspective. Future clean electricity grid mixes and the development of more sustainable production processes could strongly contribute to the convenience of BEVs by minimising GHG emissions as well as countering potential setbacks in terms of other environmental impacts."

Time to crack those rose-coloured spectacles.

To suggest, as some ill-informed environmentalists have, that electric cars 'emit no CO_2' is absurd because the power stations that charge them up, do.

To charge an electric vehicle (such as a Tesla), just once, requires the burning of 40 kilogram of coal. A petrol car will require about 20 kilograms of petrol for the same distance. It follows that the electric car is emitting about double the CO_2 of a petrol fuelled car.

Drax power station is a large biomass and coal-fired power station in North Yorkshire, England, capable of co-firing Petroleum coke (Petcoke). It has a 2.6 GW capacity for biomass and 1.29 GW capacity for coal. Its name comes from the nearby village of Drax. It is situated on the River Ouse between Selby and Goole

The numbers are telling:

- ✓ Drax uses about 0.31 kilogram of coal per KWh generated.
- ✓ A Tesla battery is rated at 70 KWh and (fast charging delivers only 60% of a full efficient battery) will need 125 KWh of electricity for a single charge; this works out as about 40 kilograms (0.31×125) of coal for a full charge [87kg on Greenpeace analysis data].
- ✓ The cost of electricity for the range available in a Tesla—200 miles in summer; 100 miles in winter—works out at around £19. The petrol for 200 miles costs more but most of that cost is tax (currently about 60-65%)—about £28. In winter, for 100 miles, the petrol costs just £15.
- ✓ During trials, between 1927-30, of British steam locomotives a typical result was: for a 500-ton express train, coal was consumed at the rate of 20 kg per mile. Over 200 miles therefore 4000 kg was consumed.
- ✓ Scaling down to a two-ton car: 4000 ÷ 250 = 16 kg coal. Even allowing for economies of scale, compare to 40 kg required by a Tesla.
- ✓ The Tesla battery alone weighs 800kg—that is nearly a ton—equivalent to ten passengers (an average petrol engine + fuel weighs about 140kg+).

Are EVs to be continually subsidised by UK Taxpayers?

The cost of running an electric car is paraded as a huge benefit, but can the taxpayer supported EV subsidy be maintained forever in order to keep repeating that claim?

Now, on the face of it in the table, the EV being 7p per mile cheaper to run, is an attractive proposition. Though not as eye-catching as the environmentalist regime always claim.

Even though electric cars are still much more expensive than petrol and diesel alternatives, that gap in price is gradually narrowing and there is at least now an argument that some electric models make a lot of sense on financial grounds.

However, the discrepancies once tax is taken out of the equation will surprise all. Buyacar.co.uk looked at the cost of running an EV vs a Petrol. They chose a BMW i3 EV and a petrol 318i. Here is their analysis [18].

The Government rely on £35bn every year from Fuel Duty and VAT from petrol, diesel and other fossil fuelled vehicle fill-up tax receipts. If in the example comparison above, the petrol fuel tax is removed, this would amount to over 9p per mile less.

Making the cost of filling up for the BMW 318i reduced to just over 5p per mile.

In addition, EVs pay no VED. In this analysis, if the petrol car enjoyed zero VED too, that would reduce annual running cost for the 318i by 3.7p per mile.

Cost of running an electric car vs a petrol car

Figures based on three years of ownership, and covering 12,000 miles annually

	ELECTRIC BMW i3 £29,570	PETROL BMW 318i £29,600
Fuel	3.7p per mile + £354 home charger	14.2p per mile
Tax	£0	£445
Loss of value	£16,707	£15,066
Insurance	£1,089	£824
Servicing + tyres	£322 + £243	£528 + £87
TOTAL	67p per mile	74p per mile

Source: Thatcham Research, KeeResources & manufacturer data. i3 cost includes government grant

So, here's the thing, if fossil fuelled vehicles had the same tax subsidy benefits as EVs do, their cost per mile would fall from 74p per mile to 61p. That's 6p less than the BMW i3 Electric car. And don't forget in the example above, the Government EV subsidy to move to an EV was not taken into account.

Electric vehicles, we are told, are here to stay, subject to the uptake of other powertrain fuel technologies now in development. **So, it would be absurd and economically catastrophic for any Government to NOT try to replace the current always reliable 4th to 5th largest income to the Exchequer, with a new EV tax. That is a significant point that is going under the green agenda's radar.**

Over half of petrol and diesel drivers thinks it is only fair cyclists should contribute a tax payment to using roads.

In the FairFuelUK poll 49,160 Road Users were asked who should help to maintain the enduring Fuel Duty/VAT tax receipts into the Treasury when EVs are likely to dominate. A most significant survey outcome: 84% of petrol and diesel drivers believe that EVs should pay a form of Fuel Duty.

Furthermore, even 64% of EV Drivers say, somewhat surprisingly, they are prepared to pay a road user tax that is likely to replace Fuel Duty. But any replacement fuel tax, say over 9 out of 10 EV drivers must be mainly loaded onto fossil fuelled drivers.

Who should pay to replace Fuel Duty/VAT	Cyclists & Walkers say	EV Drivers say	Fossil Fuelled Drivers say	ALL Road Users say
Petrol Drivers should	83%	91%	55%	58%
Diesel Drivers should	84%	92%	55%	59%
EV Drivers should	74%	64%	84%	82%
Cyclists should	22%	23%	53%	50%
Total	5288	4680	44480	49160

Environmental evangelism & virtue signalling policies costing the UK £billions!

The Government seems ill-informed in developing a fair and equitable long term road user plan.

Increasing fiscal exposure to catastrophic risks" say OBR. They warn the Government on the Cost of going Green. [27] Here are pertinent extracts from their latest 'Fiscal risks report'.

As we emerge from the largest peacetime economic and fiscal shock in three centuries, our third Fiscal risks report (FRR) departs from the encyclopaedic approach of our previous two and shifts focus onto three sources of potentially very large fiscal risks: the coronavirus pandemic, **climate change**, and the cost of government debt. These three risks are very different in nature, but nevertheless have some important features in common.

There is a high degree of uncertainty concerning both their timing and associated costs. They are characterised by non-linearities or 'snowball effects' in which costs can escalate dramatically from the point of crystallisation. And they are global in nature, with the potential for rapid contagion across countries.

Governments seeking to manage these threats must thus weigh the known costs of early action to mitigate these risks against the uncertain costs of dealing with the fallout when they crystallise. They must also weigh the limited but more deliverable benefits of acting unilaterally against the greater but more elusive gains from acting globally.

Climate change results from several market failures – most importantly that the costs of emissions to current and future generations are not borne by those who produce them today.

This can be addressed by applying an appropriate price on carbon (for example via a tax or an emissions trading scheme (ETS)). But there are many other policy challenges to overcome, so the path to net zero can be expected to involve many policy levers on top of carbon taxes and ETSs, including bans and other regulations, and public subsidies and investment. These will all have economic and fiscal implications of one sort or another – either directly (via taxes and spending) or indirectly (via wider economic outcomes).

Carbon tax revenues. The OBD scenario assumes all emissions are taxed, and more heavily, from 2026-27 onwards (which could be achieved by extending the UK ETS or imposing a uniform carbon tax in its place).

Based on elements of the Bank and CCC (Climate change crisis) scenarios, the tax rate starts at £101 per tonne (in real terms) and rises steadily to reach £187 per tonne in 2050-51. On this basis, additional carbon tax revenues raise 1.8 per cent of GDP in 2026-27, after which revenues decline steadily to 0.5 per cent of GDP in 2050-51 as falling emissions more than outweigh the effect of the rising tax rate. Towards the end of this time frame revenues are very uncertain, with an increasingly narrow tax base and an increasingly high tax rate, meaning even small differences in the pace of emissions abatement would have large revenue impacts.

China wealth creation policies trump the environment!

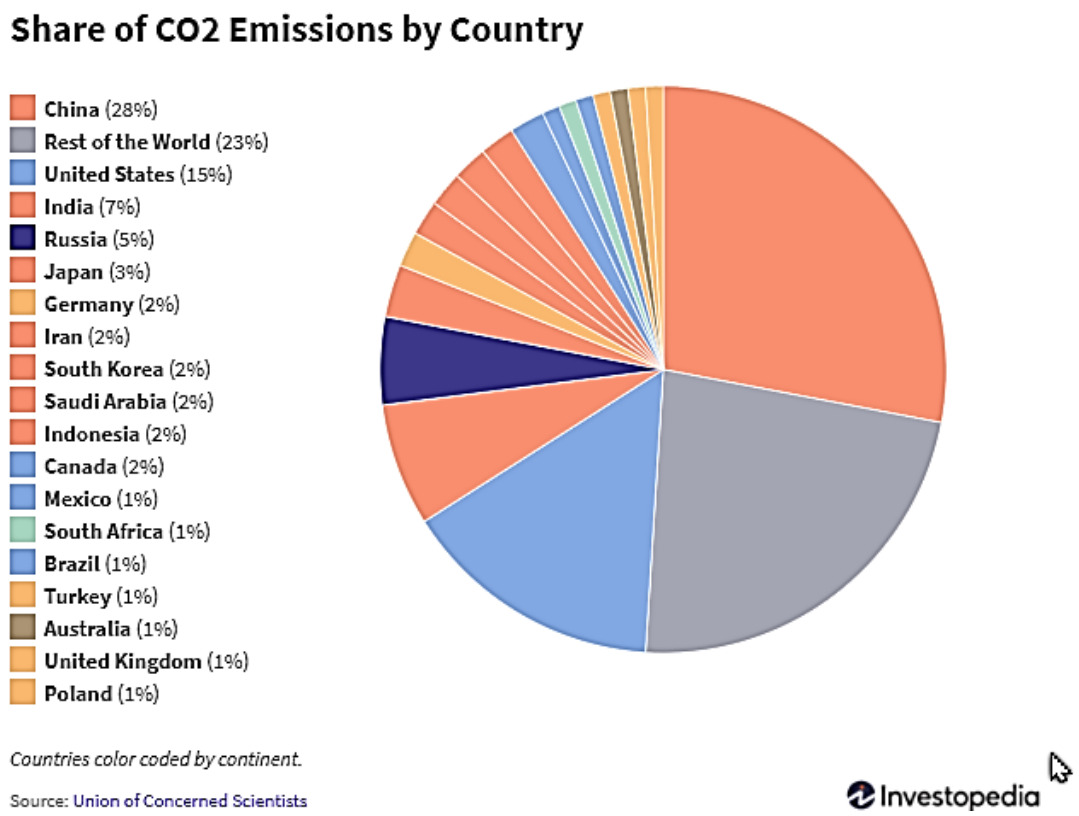
China Puts Economy First, Climate Last [13]

The UK is ONLY responsible for just 1% (& falling) of global Man-made CO_2 emissions.

"China and emerging nations refuse to adopt UK's suicidal environmental policies." GWPF 28th June 2021

China's top economic planners have put the brakes on attempts by environmental officials to reduce carbon emissions as driving growth takes priority over meeting climate targets for now, according to people familiar with the matter.

Officials at China's main economic planning agency, the National Development and Reform Commission, have limited the initial scope of a national carbon-trading system, which is set to go into full operation later this month after pilot projects in eight Chinese cities.



The economic value of CO_2 emissions reductions associated with Zero Emissions Vehicles is effectively zero.

A US report [9] suggests EV's are out of reach for the average American, and broad adoption will actually cause an increase in traditional air pollution.

It asks whether the internal combustion engine is on its way out. It soon will be, according to advocates for "zero-emissions vehicle" (ZEV) technologies, especially battery-powered electric vehicles. They claim that ZEVs will offer superior performance, lower cost, and, most importantly, "emissions-free" driving.

Sound too good to be true? That is because it is, according to a new report published by the Manhattan Institute. Dr Jonathan Lesser, the author of "Short Circuit: The High Cost of Electric Vehicles," argues that critics of the internal combustion engine fail to consider just how clean and efficient new cars are.

Using a recent forecast prepared by the U.S. Energy Information Administration, Lesser's analysis shows that, over the period 2018 – 2050, the electric generating plants that will charge new EVs will emit more air pollution than the same number of new internal combustion engines, even accounting for air pollution from oil refineries that manufacture gasoline.

What is more, EV subsidies benefit the wealthy at the expense of the poor. A nationwide survey of EV owners in 2017 found that 56% had household incomes of at least $100,000 and 17% had household incomes of at least $200,000. In 2016. median household income for the US as a whole was less than $58,000.

As mentioned, the bottom line of Lesser's report is - **the economic value of CO_2 emissions reductions associated with ZEVs is effectively zero.** Yes, it is true that ZEVs reduce CO_2 emissions compared to new internal combustion vehicles. However, this reduction will be less than 1 percent through 2050, and looking ahead to the future. In terms of climate change, this will have no measurable impact, and therefore no economic value.

So, does Lesser want to get rid of ZEVs altogether? Not necessarily, but he takes a stance on mandates for these vehicles. "The bottom line is that the economic and environmental rationales for subsidizing ZEVs do not withstand scrutiny," he writes in his report. "These subsidies, along with mandates for ZEV adoption, should be eliminated."

The CO_2 illusion

Some critics of this report will be quick to argue that its authors are climate change sceptics. This could not be further from the truth. Without doubt climate change is happening but the APPG wants road user policy to be based on facts not emotion. The very nature motorists are such easy fiscal targets, makes them a continued first choice to raise tax revenue.

But why is only CO_2 emissions used as the main yardstick to raise tax revenue?

The question is simply this: is it right that UK's 37m drivers seem to be the only constituency segment taking the environmental punitive hit(s) to mitigate climate adversity?

Political emphasis on who should pay for climate change is centred on CO_2 emissions. London's current Ultra-Low Emission Discount for example, applies to cars or vans that meet the Euro5 standard for air quality, as well as emitting 75g/km or less of carbon dioxide (CO_2). If your car emits less CO_2, you pay less to Her Majesty's Revenue and Customs (HMRC).

First Year Rates (FYRs) of VED (see table) will vary according to the carbon dioxide (CO_2) emissions of the vehicle. A flat Standard Rate (SR) of £140 will apply in all subsequent years, except for zero-emission cars for which the SR will be £0.

First-year car tax rates from 1 April 2021

CO2 emissions	All cars inc RDE diesel	Non-RDE diesel
0	0	0
1-50	£10	£25
51-75	£25	£115
76-90	£115	£140
91-100	£140	£160
101-110	£160	£180
111-130	£180	£220
131-150	£220	£555
151-170	£555	£895
171-190	£895	£1345
191-225	£1345	£1910
226-255	£1910	£2245
Over 255	£2245	£2245

Cars with a list price above £40,000 will attract a supplement of £310 on their SR for the first 5 years in which a SR is paid.

So, a car over £40k, even with low emissions will be penalised. How can that be an incentive to driver cleaner vehicles?

Duncan White of the Alliance of British Drivers says on the CO_2 issue:

"First, CO_2 is not the problem it's made out to be and it certainly is not a pollutant the headlines portray. It is actually plant food which is why farmers increase glasshouse concentrations from our current atmospheric levels of about 400ppm (parts per million) to 1,500ppm to boost plant yield.

It is also worth noting that inside a motorcyclist's enclosed helmet CO_2 levels can reach 1,200ppm and inside a submarine at sea for weeks on end it is not uncommon to get concentrations of 22,000ppm. Sailors do not suffer ill effects.

Current atmospheric CO_2 levels of 400ppm allegedly, are close to plant starvation levels and if anything, we should be boosting concentrations, not trying to get to net zero. CO_2 has been the focus of some very bad press and humanity has been blamed for releasing tonnes of the stuff into the atmosphere causing runaway global warming. However, a few hours of study of the real science shows beyond doubt that CO_2 is not the miscreant it is purported to be. That governments have bought into this fable is going to cost you and me a lot of money. And our freedom!

Secondly, even if CO_2 is at the root of all claims of global warming our efforts to turn the off switch to 'stop' are limited. For an analysis of this aspect of the problem we must look to the US National Centre for Atmospheric Research who were jointly funded by the UN and the Federal Government to create a system to look at the impact that a net zero scheme would have on global temperatures.

The MAGICC system, Model for the Assessment of Greenhouse Gas Induced Climate Change, looked at the immediate cessation of using all fossil fuels in the USA and concluded that "no matter what assumptions are used for the amount of or increase in fossil fuel generated CO2 in the US, from small amounts to very large ones, complete elimination of all fossil fuels in the US immediately would only restrict any increase in world temperature by less than one tenth of one degree Celsius by 2050, and by less than one fifth of one degree Celsius by 2100".

Even if one is a true believer in the climate change paradigm, the costs to families, society and the national well-being is an eye watering prospect.

For those convinced that climate change is the greatest deception ever imposed on humanity the costs are a travesty."

What about particulate matter?

Emissions' Analytics recent newsletter articulated: While we have been occupied with reducing exhaust emissions to control air quality problems, other sources of pollutants have not received the same attention historically.

Now that tailpipe emissions of modern internal combustion engines (ICEs) in both Europe and US are generally well below regulated limits for pollutants, focus is now turning to 'non-exhaust emissions', which cover tyres. Oh! EVs need tyres along with bicycles and e-scooters!

Emissions Analytics' testing shows that, in normal driving, tyre wear emissions are about one hundred times greater than tailpipe particle mass on a modern ICE vehicle.

In legal but extreme driving, enough to significantly reduce the lifespan of a vehicle's tyres, that factor increases to around one thousand.

In addition to tyres, non-exhaust emissions cover material from brake and road wear, as well as resuspended solids, whipped up from the carriageway by the moving vehicle. Of these, tyre wear emissions are probably the largest and fastest-growing component. Brake wear emissions are forecast to fall as regenerative braking becomes more widespread.

Road wear and resuspension rates are only partly related to the passing vehicle, including its weight, but are probably more determined by the road material and condition, and what particles are blown onto the road from multiple surrounding sources. Tyre wear emissions are likely to grow as vehicles continue the long-term trend of becoming heavier, although this may at some point be offset by using more lightweight construction materials.

Understanding tyre wear emissions provides a challenge as they are heterogenous. Unlike, for example, nitrogen oxide (NOx), which is a unique compound that can be measured as a mass or volume, particles from tyres come in an infinite combination of shapes, sizes and densities. Moreover, the particles are made up of a wide array of chemical compounds, and these chemicals may also stick – or adsorb – to the surface of the particle. In this way, particles can act as the distribution vector for other compounds.

From the University of Tennessee at Knoxville comes this surprising bit of research. Taken in entirety, an electric vehicle has a greater impact on pollution than a comparable gasoline vehicle.

What Cherry and his team found defies conventional logic: electric cars cause much more overall harmful particulate matter pollution than petrol cars.

Chris Cherry, assistant professor in civil and environmental engineering, and graduate student Shuguang Ji, analysed the emissions and environmental health impacts of five vehicle technologies in 34 major Chinese cities, focusing on dangerous fine particles.

"An implicit assumption has been that air quality and health impacts are lower for electric vehicles than for conventional vehicles," Cherry said. "Our findings challenge that by comparing what is emitted by vehicle use to what people are actually exposed to. Prior studies have only examined environmental impacts by comparing emission factors or greenhouse gas emissions."

The health fallacy – 'Thousands are dying of air pollution"

In 2015, the European Environment Agency report on Air Quality in Europe said that 72,000 premature deaths were attributable to Particulate Matter (PMs) and NOx exposure in 2012 across 40 European countries mainly because of exposure to diesel emissions.

The EU called these figures 'A public health emergency'. If the EEA is right, we should be seeing this massive death toll in our hospitals. This huge loss of life should be visible to everybody, and we should be hearing about the extra strain put on the doctors, nurses and health services across Europe because of the thousands of these emission-related fatalities. But we're not.

And that's why FairFuelUK and the APPG wanted to look at those figures a little more closely. Is it right that 37 million UK drivers should be subjected to punitive measures and unchecked media demonisation based on flawed data?

The key word here is 'premature.' A premature death is defined as one that 'occurs before a person reaches an expected age. This expected age is typically the age of standard life expectancy for a country or gender.'

This means that every death before the standard life expectancy is a premature death whether it happens 20 years or two days before that life expectancy. By definition, many humans die prematurely for a wide variety of reasons.

All doctors and scientists realise that this premature death number has only a limited meaning, so they have given us another more accurate value and its YLL – or 'Years of Life Lost'.

Years of Life Lost is defined as 'The years or potential life lost owing to premature death and considers the age at which deaths occur giving greater weight to deaths at a younger age and lower weight to deaths at an older age.' YLL therefore gives us a more nuanced approach versus relying on the number of premature deaths alone.

In the EEA report (Their Table 9.1 pictured) they give us the YLL number for Europe as 800,000 years of life lost. That is a terrifying figure!

Table 9.1 Years of life lost (YLL) attributable to $PM_{2.5}$, O_3 and NO_2 exposure in 2012 in 40 European countries and the EU-28

Country	$PM_{2.5}$			O_3			NO_2		
	Annual mean	YLL	YLL/10^5 inhabitants	SOMO35	YLL	YLL/10^5 inhabitants	Annual mean	YLL	YLL/10^5 inhabitants
Total (*)		4 804 000	895		215 000	40		828 000	154
EU-28 (*)		4 494 000	898		197 000	39		800 000	160

But this number covers all of Europe - which is roughly 500 million people - and the EEA breaks this down to the number of Years of Life Lost per capita as 160 YLL/100,000. That means 100,000 people together lose 160 years of life. For each person this works out as 0.0016 years or a more understandable 0.584 days - if an average life expectancy is 80 years or 29,200 days.

The EEA says that if the whole of Europe meets the EU proposed NOx limits of 40mg/m3 everywhere, we'd improve YLL by 205,000 across 500 million people or roughly - 3.5 hours. That is just 3.5hrs in a lifetime!

The 40,000 deaths claim still goes unchecked, unchallenged and this headline is reeled out by much of the media that seem simply, to despise the motorist. Particularly the BBC and Sky!

Note that the EEA arrived at this time figure – specifically the estimate of a premature loss of life of between half-a-day and 3.5 hours per person. It is also the EEA that seeks to directly attribute this low loss of lifetime to NOx pollution.

This significant widely reported mortality figure put down to poor air quality is now, broadly unquestioned, across the media. The emotive number is reached because of the use of that word 'premature.'

To form policy based on such a febrile and clearly unproven estimate, with no real evidence of any deaths from NOx pollution, is both irresponsible and scientifically unfounded.

It will cost us trillions of Pounds in transport policy and legislation changes. Even if the air quality death estimates were valid, this would improve our life expectancy by only a trivial amount of time.

Martin Hetzel, Medical Director of the Red Cross Hospital, Stuttgart – Germany said:

"There is no such thing as a fine particulate disease of the lung or heart, and you don't come across such a thing as nitrogen dioxide disease of lung or heart in hospital. They don't exist. Fine particulate matter or NO2 hasn't caused a single death. These are abstract mathematical models."

"It's simply not plausible that such small concentrations of NO_2 and fine particulate matter would cause the harm and death that are being publicized at the moment."

The Kloster Grafshaft Hospital, a former Benedictine Monastery used for fresh air recuperation after WWII, specialises in respiratory care. For years Dieter Kohler, a former president of the Respiratory Society, was Medical Director there. He is also sceptical about the German Environmental Agency's data. He said:

'They compared 2 groups, rural and city dwellers with respect to NO2, and they pinpoint a small difference in life expectancy.'

'The people in the country live a bit longer but that might be because they exercise a bit more, drink less alcohol and smoke less, or a range of other factors. Attributing the difference to nitrogen dioxide or fine particulate matter isn't scientific.'

'They take a statistical correlation and turn it into a causal connection without proof. On the contrary it's extremely easy to refute that connection'.

'You would need to conduct tests with people exposed to high quantities of NO2 and fine particulates over many years to get more precise findings. That is impossible for ethical reasons,' but Kohler points out people are taking part in a kind of voluntary experiment of a similar nature.

Jurgen Resch from the German Environmental Agency, GEA, wants the laws on air pollution to be tightened up. 'this limit is actually far too lax. 800,000 people get sick each year because of NO2', according to GEA.

But Martin Hetzel responded: 'that's populism. Cannot be taken seriously, it is populism driven by ideology. Of course, you might have the idea, and that is the ideology behind all of this of banishing cars from cities.

You can do that, but you shouldn't engineer that by setting legal limits without any basis in science.'

"Every Journey Matters – Brainwashing deceit?"

That is the advertising mantra of TfL (Transport for London) under the re-elected London Mayor, Sadiq Khan. Well, every journey does indeed matter unless you drive a diesel or petrol vehicle, then you will suffer under the Mayor's cash grabbing 'pay to pollute' policies. Set to increase further in October 2021 to boundary London's N and S Circulars. This catchline is potentially breaking advertising standards because what TfL is claiming is tantamount to a lie. Their policies mean every journey does not matter to Mr Khan's administration.

Lembit Opik, Former MP, Broadcaster, Communications Director of the Motorcycle Action Group comments on one of the TfL's propaganda driven adverts back in 2019.

TRANSPORT FOR LONDON
EVERY JOURNEY MATTERS

"To make matters worse, the London authorities commissioned a radio advert, broadcast on LBC on 4th August 2019 and at other times. This advert, in the voice of a child, claims that most of the pollution in London is created by transport. This amazing claim is simply untrue.

For example, the primary generators of NOx are gas appliances, not road vehicles. As for particulate matter, even if all transport in London were to be removed from the streets of the city, between 70% and 89% of the particulate matter would still be present in urban air - the primary sources of this being weather phenomena and agriculture.

The emotive and misleading tone of the anti-transport radio advert underlines a sorry state of affairs whereby the Mayor of London seems happy to preside over a dishonest campaign of discrimination against road users. And all of this is founded on the basis of fake science, justifying the blaming of transport.

Until now, they have got away with it because it has been difficult to challenge the falsehoods. Fortunately, interested groups such as MAG, FairFuelUK and individuals are forcefully uncovering the catastrophic economic and social impact this persecution of road users is creating.

The Mayor's tragic mismanagement of the transport agenda is making the capital unfit for business journeys, due to a dogmatic campaign against powered vehicles. The irony is that none of this is helping the environment in any significant way which exceeds the local and economic cost - and none of it is reducing thousands of deaths incorrectly attributed to ambient air pollution."

Emotion not science -

One person's death has been linked to poor air quality. And that incident, sad as it is, has been used as a political pawn to demonise drivers even further.

Left wing politicos and environmental groups will exploit the subjective ruling mercilessly. Anti-driver resentment will run rife fuelled by a plague of opportunistic legal actions.

London Mayor Sadiq Khan is exposed to indictment from respiratory sufferers using London's tube. See further discussion later in the report.

No mention was made of the indoor environment that the deceased experienced in her lifetime. No one measured her actual individual exposure to any type of air pollution outdoors, or indoors, where the average person spends 90% of their time. The deceased final asthmatic episode took place within the family home.

Professor Paul Wilkinson countered the evidence given by Professor Stephen Holgate by stating that "he had found no evidence to support the theory that her condition worsened to the point of requiring hospitalisation at times when air pollution was higher."

The fact that the Diffusion Tubes in the vicinity of her home measured lower values than the EU limits was ignored by the family solicitor. He continually referred to the WHO limits which are much tighter, but not yet adopted by the UK or EU.

FairFuelUK's Howard Cox said: **"No one can accurately show a mortality is down to one causal factor. Look what has happened in the pandemic, with Covid being written on thousands of death certificates without absolute causal proof, shows this point to be so true. And let us be clear, the cause of asthma remains unknown. Asthma attacks for sufferers are brought on by one or more 'allergens' or 'triggers', which are specific to each individual."**

Sadly, the **subjectivity** in this young girl's ruling will be used by well financed environmentalist groups to further demonise UK's 37m drivers.

It belies the good work by vehicle manufacturers and the haulage industry for example, who have halved vehicle emissions in the last decade, the period since the tragic death of the deceased.

It's clear that a logical conclusion from this politically exploited case must mean that everyone who uses TfL's Underground who develop serious respiratory indications, should indict the London Mayor for damages.

And even worse, the Government's continual ignorance to adopting proven low-cost pragmatic solutions to massively reduce vehicle emissions, must be challenged.

It is a dereliction of their duty not to thoroughly investigate practical ways to improve air quality and to continue to use drivers as out-and-out cash cows."

ABD, the Alliance of British Drivers, Environment spokesman Paul Biggs, was refused permission to give written or verbal evidence to the inquest.

The UK signed up to EU legal limits for Particulate Matter and Nitrogen Dioxide but has not yet signed up to the lower WHO limits.

Respiratory physician Professor Tony Frew pointed out in 2017 that "pollution levels are illegal because we made it illegal, not because it's dangerous."

The verdict should not be used to curtail vehicle use, via punitive taxation, road space reallocation or roadblocks known as Low Traffic Neighbourhoods (LTNs), which increase congestion and therefore vehicle emissions. The deceased's mother paradoxically has described the Lee Green LTN in Lewisham as "insane".

We must promote the use of engine technology to further reduce vehicle emissions through science, including fuel additives, which the government is ignoring.

DEFRA 2018 figures show that road transport emissions are only responsible for 31% of NOx, 11% of PM2.5 and 11% of PM10. But drivers are expected to pay 100% of all clean air zone charges.

The UK's CO_2 emissions fell by 2.9% in 2019, according to Carbon Brief analysis. This brings the total reduction to 29% over the past decade since 2010, even as the economy grew by a fifth.

In 2019, 27% of net greenhouse gas emissions in the UK were estimated to be from the transport sector, 21% from energy supply, 17% from business, 15% from the residential sector and 10% from agriculture.

The other 10% was attributable to the remaining sectors: waste management, industrial processes, the public sector and the land use, land use change and forestry (LULUCF) sector.

Why are these other polluters not fiscally punished?

Emissions from transport fell by 1.8% (2.2 MtCO2e) in 2019, their second year of falls having previously risen since 2013.

In 2020, territorial carbon dioxide emissions from the transport sector were 97.2 Mt, 19.6% (23.7 Mt) lower than in 2019, and 22.5% lower than in 1990.

TRANSPORT EMISSIONS ARE FALLING, and we are all living longer too!

Where is the connection that transport is affecting our health?

In 2020 transport accounted for 29.8% of all territorial carbon dioxide emissions, compared to 33.1% in 2019.

The Commercial Heartbeat of the UK feels more than threatened.

Whilst most of the larger road haulage vehicles are not as yet, being threatened with a 2030 fossil fuel ban, it is worth noting that this vital sector to our economy and all our lives, has made great strides to lowering emissions, and continues to do so.

Rod McKenzie, RHA's Managing Director Policy and Public Affairs says: "Banning diesel trucks from all roads by 2040/2050 doesn't make sense – because the alternative hasn't yet been invented"

The productivity and competitiveness of the UK economy is dependent upon having an efficient road haulage sector and road infrastructure that works for all users. It is important to remember that everything we eat, drink and wear depends on road haulage services. We would have no homes to live in or jobs to go to without trucks, and the companies and drivers that operate them. The vehicles are seen every day – but are misunderstood, and frankly so often wrongly demonised with ill-informed green driven anti-truck NIMBY political rhetoric.

Their access to many parts of our cities is being impeded, slowed, and even blocked, for the same virtue signalling reasons hitting all fossil fuelled vehicles. The UK's fifth largest employer and its environmental performance has been transformed; for example, the latest Euro 6 lorries are recognised by TfL as compliant with the Ultra-Low Emission Zone. Modern lorries are efficient and quiet. **In the last decade exhaust emissions have been halved.**

The RHA is criticising Government over its plans for decarbonising the UK's truck fleet. The association supports the eventual aim but says the plan is speculative, potentially damaging to business, and short on detail.

> ***RHA Chief Executive, Richard Burnett said in response to the Government's Transport Decarbonisation plan:*** *"This proposal as it stands is unrealistic. These alternative HGVs don't yet exist – we don't know when they will and what they will cost. It's also not clear what any transition will look like – this is blue skies aspiration. For many haulage companies there are fears around cost of new vehicles and a collapse in resale value of existing lorries. The problem is even worse for coaches, which are more expensive to buy and have longer lifecycles.*
>
> *We support investment in vehicles to deliver Net Zero, but it requires coherent, affordable, and inclusive market-driven policies. Decarbonisation policies must support a thriving commercial vehicle sector to ensure the UK has a vibrant economy supporting people and businesses.*
>
> *The needs of SME businesses must be at the heart of Government ambitions, he added.*
>
> *"SMEs ensure the goods and services consumers demand are delivered affordably and on time. These are ordinary people without deep pockets who want to do the right thing."*

Political dogma leading to a £trillion of debt.

So, if we get this wrong and instigate the scrappage of perfectly serviceable cars, at the same time as achieving no social or health benefits, the strategy will lead to unforgivable inconvenience and cost for no benefit.

We have seen the dreadful consequences of the deficient government policies that made 50% of us switch to diesel, only to be told we had to abandon those diesel vehicles. This sort of blundering policy development cannot be allowed to happen again. But it could happen if the current environmental agenda continues to be promoted without being founded in sound science.

We must do this right first time and there is a need to be logical and data-based in the endeavour. We must base any legislation only on facts rather than innuendo, class division or green evangelism.

To clean up our urban air we need to take 37 million UK drivers with us.

But nowhere in The London Mayor's Transport Strategy can we find any incentives for consumers to change their behaviour. All we are seeing are punitive charging tactics. If fossil fuelled vehicles are so heinous, why are they not banned completely. The answer is simple, they have become a valuable and easy source income for Mr Khan.

The modal shift from cars will continue to be pushed forward by extra costs through taxation and road and zone restrictions. Simply put, there will be places in London where you won't be able to use or park a car at all and other places where you'll have to pay for every mile you travel.

Staggeringly, even within the current errant policy position, there are contradictions.

There is no mention of concessions for EV drivers who could have been offered free parking, bus lane use or even road priority access. TfL have been practicing a car-reduction strategy for a long time – and this seems to even extend to EVs.

Why is it, drivers are the only ones punished?

What about other sources of emissions?

Nobody objects to clean engines. No-one argues against improved efficiency which cuts emissions. But the emissions agenda is currently being dominated by the concept of panic and global catastrophe. In such a charged environment, it is difficult, or even impossible, to create rational, data-based policies.

For example, while NOx - nitrogen oxides - are being blamed for health issues, those making these claims are unable to demonstrate why there is no association between illness and cooking with gas, which produces a large amount of NOx in a home, versus cooking with electricity which does not. Thought provoking!

When students prepared spaghetti with tomato sauce over two gas flames for 15 minutes, the indicator jumped to 1,300 micrograms nitrogen dioxide per cubic metre – more than 30 times the threshold limit outside.

By the way, there are no explicit pollutants warnings for candles or gas stoves. Why not?

In addition, while Particulate Matter (PMs) is being blamed for various health problems, authorities such as Transport for London are entirely relaxed about forcing drivers off the roads and into the London Underground, where PM levels can be 2,900% higher than on busy roads.

The 'doublespeak' which enables campaigners to call for reduced NOx emissions, based on no credible data, and encourages drivers out of their safe vehicles, into the soot filled underground, has caused fossil fuelled road users to exclusively bear the brunt of the environmentalists' assault against pollution.

260 diesel buses an hour on Oxford Street generates NOx and PM10 pollution (16% of it comes from buses in the centre of London) and adding 175,000 Private Hire Vehicle licenses for the new army of Uber drivers has just added 18,000 extra cars a day to an already long and winding traffic jam.

Narrowing of roads and the Cycle Superhighway has also slowed traffic flow (stationary traffic produces four times more emissions than moving traffic) and increased pedestrian-level pollution. **London's road system is the most congested it has ever been.**

The APPG worries that targeting passenger car drivers, (a relatively narrow band of polluters at 11% of NOx) won't make a significant difference to the air Londoner's breathe. If all the cars vanished tomorrow, 89% of the NOx would remain.

The London Port Authority which oversees the 50 million tonnes of cargo passing through the tidal Thames every year has 'no calculations' for their emissions and pollutants. That is diesel-powered ships outfitted with diesel generators, that run 24/7 when they're in port. The LPA is carrying out an emissions audit. This is a potentially very large source of diesel emissions that we should have measured by now & taxed? **When these figures are factored in, they will further reduce the proportion of emissions emanating from road users.**

According to the London Assembly Environment Committee, gas central heating produces 16% of NOx (some reports set this at 38%), domestic wood burning 12% of PM10s, diesel vans 5% of NOx, rail 8% of NOx, diesel plant and machinery 14% of NOx and ground-based aviation 8% of NOx.

Also add shipping, HGVs, industrial combustion, air conditioning and planes to a list of other polluters that get scant mention in the diesel debate.

The battery supply crunch

There is another problem with the anti-internal combustion engine lobby. They completely refuse to address energy and overall pollution issues. It turns out that an electric vehicle is 14 times worse environmentally compared to a hybrid.

This is in part, due to the huge environmental footprint of creating an electric vehicle and its batteries.

Electric vehicles still produce air pollution and greenhouse gases from their brakes, tires, the electricity that powers them and the factories that build them. Even if we can address (or ignore) these problems, there is a much larger stumbling block facing personal electric vehicles as a solution for climate change.

Before an electric car turns a wheel, the manufacture of the batteries alone creates more CO_2 than a small petrol engine car driving 100,000 miles.

In 2019, the world produced about 160 gigawatt hours (GWh) of lithium-ion batteries. That is enough for a little more than three million standard-range Tesla Model 3s — and only if we use those batteries for cars, and don't build any smart-phones, laptops or grid storage facilities.

As of Dec 2019, the number of lithium-ion battery mega factories in the pipeline has reached 115 plants. The world's leading EV and battery manufacturer added a huge 564GWh of pipeline capacity in 2019 to a global total of 2068.3GWh or the equivalent of Only 40 million EVs by 2028. In Jan 2019, Benchmark Minerals' saw a Lithium-ion Battery Mega factory pipeline of 68 plants with a total capacity of 1.45TWh by 2028.

Europe's planned 2018 lithium-ion cell battery capacity is now 348GWh. China plans to add 564GWh by 2028 and has 88 of 115 lithium-ion battery mega factories in the pipeline to 2029.

The front-end political pressure to drive electric instead of fossil fuelled vehicles means demand will massively exceed global battery production capacity.

Green Killers: Congo's Miners Dying to Feed World's Hunger for Electric Cars

Exploited by Chinese firms, workers as young as nine risk their lives to feed the world's growing hunger for cobalt.

In an article by Christina Lamb, in the Sunday Times [12], this story resonates emotionally with readers.

Solange Kanena (pictured) sits on her broken orange sofa, heavily pregnant, resting. Looking around her three-room shack, she wonders how she will feed her eight children. Her husband died in a mining accident 10 days ago.

She has never held an iPhone and has no idea what an electric car is. But when the deep, muddy tunnel collapsed on her husband, he was digging for a commodity that is critical to the batteries of both: cobalt.

Solange Kanena's husband died in a mining accident; she is pregnant with her ninth child. Image: PAULA BRONSTEIN

Last year about 70% of the world's cobalt supply came from the Democratic Republic of Congo, one of the poorest, most violent, and corrupt places on Earth. Much of its cobalt comes from around this town.

"Without DR Congo there is no electric car industry and no green revolution," said Anneke Van Woudenberg, head of Rights and Accountability in Development (Raid), a UK-based campaign group.

However, while electric car owners might feel happy about cutting carbon emissions, the dark side of the green revolution is all too visible in Kolwezi's modern-day gold rush.

It is estimated that 125m electric vehicles will be on the road by 2030, about 40 times more than at present. Britain is among a number of countries planning to phase out all petrol and diesel in the next 20 years.

In the shadow of shafts dug by huge multinational companies such as Glencore is what looks like a human anthill, one of the "artisanal" mines that account for 20% of production. Child labour is common and safety standards are non-existent.

In the Cinq Ans district, beneath every house is a warren of tunnels and holes, covered with sheets of orange tarpaulin, as hundreds of men and women dig into the red mud and children scurry about, bringing yellow jerrycans of water. There is even a hole beside a church where a gospel choir is in full song.

Known as creuseurs, or diggers, the miners use no equipment more sophisticated than spades, shovels and plastic head torches as they burrow into the ground looking for the tell-tale blue veins of cobalt. Those who strike lucky fill sacks with the metallic grey sludge.

Two holes sink to a dizzying depth in Tabue Joseph's Garden, where scrawny chickens peck at the earth. "A few years ago, a local guy was digging a latrine in his yard and came across cobalt, so we all started," he said.

"The conditions of mines are terrible," said Josue Kashal, a lawyer for miners. "Any time a tunnel can collapse, but they just keep going."

Kanena knew how dangerous the job was. "I knew it was risky, particularly these days when it is raining," she said. "But there is no other work."

On February 28, when Alain did not come home, she went to the hospital. "I found his dead body and collapsed crying," she said.

There were nine bodies in all. But no accident was reported. According to Kashal, accidents are often kept secret: "They know the government and other partners may use it as an excuse to close the artisan mines and take over the land."

Climate Colonialism and the EU's Green Deal

By employing corporate solutions for climate change, the EU's Green Deal will entrench further European neo-colonial practices. Al Jazeera [17] report that the push for greener sources of energy, particularly in the Global North, is driving the demand for metals like nickel, cobalt and lithium. As discussed above, labourers in mining communities working to extract these metals face dangerous and degrading working conditions.

In the Democratic Republic of the Congo (DRC), the use of child labour in cobalt mines is widespread, putting the lives of children at risk, damaging their health and depriving them of education. In Bolivia, Chile and Argentina, lithium mining uses large quantities of water, accelerating desertification and polluting underground waters and rivers, putting the health of local communities at risk.

According to data gathered by London-based NGO Business and Human Rights Resource Centre, there have been 304 complaints of human rights violations by 115 companies mining these minerals.

EV Battery Charging Safety

The (LIB) Lithium-ion battery is combustible and can catch fire, it has power cells that can cause short-circuiting if it is damaged. The plants that power them also produce acids, organic chemicals, and other harmful particulates. This means that because of the way that power is produced for electric vehicles, it is bad for the environment due to the side effects of electricity production.

Experts agree that electric cars catch fire less often than gasoline-powered cars, but the duration and intensity of the fires due to the use of lithium-ion battery systems can make the fires in electric cars much harder to put out.

The demand for lithium-ion battery powered road vehicles continues to increase around the world. As more of these become operational across the globe, their involvement in traffic accidents and incidents is likely to rise. This can damage the lithium-ion battery and subsequently pose a threat to occupants and responders as well as those involved in vehicle recovery and salvage operations.

Collision or crash has the potential to cause the LIB to burn. By dropping a custom-made EV from a height of 20 m it has been shown that certain impact conditions can result in a large amount of smoke being released from the battery followed by a fire. This potential was also observed in the field.

These fires are hard to extinguish however, requiring more fire dampening suppressant than what is needed for conventional vehicles.

For example, between 750 and 1100L of water and foam was used to suppress the Ft. Lauderdale fire. Long et al. found that in some cases the amount of water and time needed to suppress an EV fire could be in the range of 10,000L and a quenching time of 60 min, significantly more than what is normally needed for fighting conventional vehicle fires which is normally suppressed in 5 min.

There is a question as to whether it is safe to leave an EV on charge in a domestic garage overnight. Insurance companies stipulate those batteries cannot be charged in commercial garages overnight for fire risk concerns. So, will this concern impact on house insurance premiums too?

Battery Disposal

Thousands of tons of batteries end up in the garbage prematurely. The Handelsblatt Newspaper reports[14] how Matthias Schmidt, managing director of the recycling company Erlos, "is astonished".

> *"Actually, his industry had expected to be inundated with batteries from recently produced electric cars only in eight or ten years," writes the Handelsblatt. "In fact, however, thousands of tons of batteries are already ending up at waste disposal companies."*
>
> *"We would never have imagined the quantities that would accumulate after such a short time," says Schmidt. His company alone and competitor Duesenfeld, both of which specialize in recycling car batteries, are recycling more than 4,000 tons of batteries from almost all e-models this year – including those that have only recently come onto the market."*

The huge environmental problems of EVs are beginning to emerge.

Now it is beginning to dawn on the greens: They've got a colossal environmental problem in the works – a problem they were warned about long ago and one they've refused to believe was real because it clashed with their vision of a green utopia. Not long-ago Nobel Prize winning Japanese chemist and lithium battery researcher Akira Yoshino warned that solutions for recycling these batteries were sorely needed and that it was becoming "an urgent environmental issue."

Over time these battery packs become less efficient too, in the same way a mobile phone does. Batteries degrade over time as they're charged and discharged and won't hold the same capacity as when they're new. [19]

Lembit Opik said "If we covert to EVs completely 3m+ tons of batteries will have to be scrapped!

More EV deliberations

Ambitious estimates suggest there could be over 11million electric vehicles on UK roads by 2030, compared with just 300,000 to 400,000 plug-in-cars today.

What will happen to 8000 independent garages with diesel and petrol pumps to decommission? How will they replace that income?

Every servicing garage will be compelled to buy a completely new suite of tools, lifts, ramps etc. under electrical safety regulations for EVs.

Most of the drivers, who think electric cars are viable, live-in towns. The huge potential for urban traffic clogging due to 'flat battery' electric vehicles has not been considered, nor has the issue of time to recharge.

Even though you can charge an electric vehicle at home, finding a charging station if you are driving through rural areas or on a long-distance road trip can be a challenge. More areas are embracing EV charging stations and numerous hotel chains have started to include EV chargers in their parking lots. This trend will continue as demand for charging stations increases. But you will still need to find an available charging socket and allow at least 2 hours of your life (or more likely 8 hours) waiting to drive it again.

Although the cost of an electric car can be offset by fuel cost savings for the moment, the upfront price of most electric cars is still higher than that of comparable petrol/diesel-powered vehicles. And we repeat, fuel tax subsidy cannot be maintained.

Could legal actions involving EV technology become commonplace?

A Nissan LEAF electromagnetic radiation lawsuit has been filed by a Georgia man who sued the automaker "for permanently damaging his health and for destroying his family and career, not to exceed $10 million." [29, 32] The 2015 Nissan LEAF customer who filed the lawsuit alleges the car caused him serious health problems from prolonged driving while sitting on a giant battery that allegedly emits large amounts of low-frequency electromagnetic field (EMF) radiation. The plaintiff claims the LEAF radiation is "way above" safe levels of 2 mG (milligauss) or less. The 2015 Nissan LEAF has allegedly destroyed his family and his career because he wasn't properly shielded from EMF radiation.

Reuters [30] - Hyundai Motor Co 005380.KS is being sued over a string of battery fires in its electric vehicles (EVs), just as General Motors Co GM.N recalls nearly 70,000 EVs with batteries from the same maker, LG Chem Ltd 051910.KS. EV sales are climbing globally as the technology holds out the promise of cleaner transportation, with costs falling and driving ranges increasing. But the emerging risk of fire from overheated batteries could set back the entire industry.

Chevy Bolt EV catches on fire after receiving both of GM's 'software fixes' [31] - Not being able to detect conditions that could lead to fire doesn't appear to be something new. The existing software doesn't seem to notice when there's a clear cell problem in the battery.

So, what will the EV take up be, up to and from 2030?

Just 1 in 4 road users say they will drive EVs before 2030. This rises to 1 in 3 onwards from 2030. That means there will be approximately 25m fossil fuelled vehicles still in circulation.

An increase from a 27% take up in EV usage before 2030 to 33% in 2030 is small, just plus 6%!

This will have a negligible impact on the quality of the air we breathe, yet the cost of this conversion to the economy will be off the scale in terms of new power generation infrastructure and maintaining a guaranteed uninterrupted supply.

1st Transport Choice	Total	Will drive EV Before 2030		Will drive EV After 2030		Change from now
Bus	144	56	**39%**	64	**44%**	+14%
Campervan	248	8	**3%**	16	**6%**	+100%
Car Total	24952	4104	**16%**	5928	**24%**	+44%
Car EV	4680	4431	**95%**	4400	**94%**	-1%
Coach	16	0	**0%**	0	**0%**	0%
Cycle	1032	888	**86%**	816	**79%**	-8%
Disability Vehicle	640	72	**11%**	88	**14%**	+22%
HGV	2992	272	**9%**	272	**9%**	+0%
High per car	720	352	**49%**	408	**57%**	+16%
Motorbike	1648	224	**14%**	240	**15%**	+7%
SUV	4448	360	**8%**	720	**16%**	+100%
Taxi	88	16	**18%**	24	**27%**	+50%
Train	112	48	**43%**	64	**57%**	+33%
Underground	32	16	**50%**	16	**50%**	0%
Van	1184	88	**7%**	112	**9%**	+27%
Walking	2016	1352	**67%**	1480	**73%**	+9%
	44952	**12287**	**27%**	**14648**	**33%**	**+19%**

Affordability of electric vehicles

A typical counter to those facing increases in tax on fuel in any Government Budget is to say that they should use electric vehicles. The Cebr [15] for FairFuelUK, in November 2020 looked at the affordability of electric vehicles.

This table* from the Cebr's report shows the annual spending on both purchase of vehicles and on fuel by income decile for those who have at least one car available.

Lowest ten per cent	1161
Second decile group	883
Third decile group	1114
Fourth decile group	1420
Fifth decile group	1801
Sixth decile group	2127
Seventh decile group	2468
Eighth decile group	2485
Ninth decile group	2487
Highest ten per cent	4033

The spending rises from £1161 per annum for the poorest group to £4033 per annum for the richest group.

The Cebr investigated the cheapest leasing cost for an electric car on the EDF website which is £2028 for a Skoda Citigo.

The table is colour coded. Those highlighted in yellow means can afford an electric vehicle, those highlighted in turquoise can afford with a squeeze, those highlighted in pink means can afford with a big squeeze. Those not highlighted at all would find it more or less impossible to afford an electric vehicle even if they had an adequate credit rating.

So, access to an electric vehicle is a pipe dream for a third of the population and only available with some difficulty for a further 20%.

*Annual spending on purchase of cars and spending on fuel £ by income decline Figures only relate to households with cars. Source Family Spending ONS.

Real life practicality of EVs for the majority of drivers

Road users in the APPG/FFUK Survey were asked how long it takes to fully fuel their vehicles.

Type	Refuel-time to fully fill or charge up	Total	
Petrol-Diesel / Hybrids	Less than 10 minutes	41232	89%
EV / Hybrids	11 - 60 Minutes	2240	5%
EV full charge	Overnight	1424	3%
EV full charge	2 - 5 hours	1176	2%
EV full charge	5+ hours	512	1%
EV quick charge	1- 2 hours	400	1%
		49160	

89% stating less than 10 minutes was the norm. These vehicles were of course fossil fuelled or hybrids.

If an electric car takes a minimum of 75 minutes to recharge (from the survey this is, in fact reported as to be in excess of 2-5 hours), either the queues are going to be astronomical with so much time wasted or there will need to be nearly five million plus charge points installed, at an estimated roll out cost of £20 billion.

What impact will long vehicle charging downtimes have on the economy and personal time?

Critically and overlooked by all commentators, it is important to ascertain the impact of this huge redundant charging time on the uptake of EVs, in relation to how quickly and conveniently they can become **fully** fuelled for a range anxiety free journey.

Reasons for fossil fuel driver's reluctance to convert to an EV.

9 out of 10 road users excluding EV drivers in the survey are extremely concerned with the push by Government for us all to convert to electric vehicles.

Purchase price, availability of charging points, long charging time and driving range anxiety, cost of batteries and the National Grid's capability to supply power are the top reasons why diesel or petrol drivers are reluctant to move over to electric vehicles.

Concerned Govt's push to drive EVs	Total with Current EV drivers excluded	
Yes	39952	**89.8%**
No	2728	**6.1%**
Not sure	1800	**4.0%**
	44480	

	Main survey reasons for reluctance to drive electric	Total response	
1	**Purchase price**	35472	**80%**
2	**Charging points availability on route**	34119	**77%**
3	**Long refuelling time**	32816	**74%**
4	**Range anxiety**	32624	**73%**
5	**Cost of replacement batteries**	32560	**73%**
6	**National Grid will not cope with complete conversion to EVs**	31488	**71%**
7	**Electric Cars Have a Shorter Range than fossil fuelled vehicles**	29112	**65%**
8	**Battery components sourced in cheap labour conditions**	27832	**63%**
9	**Life cycle of EVs less environmentally favourable than petrol/diesel**	27576	**62%**
10	**Charging points availability at home**	25232	**57%**
11	**Winter range less than summer driving range**	24168	**54%**
12	**Lifetime of EV is too short**	24000	**54%**
13	**Battery charging safety**	18784	**42%**
14	**Engine too quiet**	18256	**41%**
15	**Limited range of choices**	14096	**32%**
16	**Charging points availability at work**	13064	**29%**
17	**Engine torque not suitable for towing**	11048	**25%**
	Total road user responses excluding existing EV drivers	44480	

Consumers simply do not trust Government's Political Push for us all to drive EVs.

The latest statistics from Autoexpress.co.uk[20], shows that consumer take up of EVs, is unlikely to happen.

An average new car from 2020 emits 112.8g/km of CO_2 - 18.3 per cent less than a model registered in 2011. It is for this reason that the SMMT (The Society of Motor Manufacturers and Traders) believes fleet renewal is essential, with "both **conventional** and alternatively fuelled vehicles having a significant role to play.

The number of electric vehicles on UK roads increased 114.3 per cent in 2020 to a record high of 199,085, while plug-in hybrid numbers rose 35.2 per cent to 239,510.

However, in 2021 plug-in cars still only represent 1.3 per cent of the cars on the road, with petrol and diesel registrations only down 0.2 per cent and 2.3 per cent respectively.

Superminis remain the UK's most common type of car, with the three most prevalent models on the road being the Ford Fiesta, Ford Focus and Vauxhall Corsa. The most common car colour in this country is black and, although manual gearboxes remain on top, the number of automatics has risen by half a million since 2019.

Mike Hawes, chief executive of the SMMT, said: "With the pandemic putting the brakes on new vehicle uptake in 2020, the average car on our roads is now the oldest since records began some 20 years ago, as drivers held on to their existing vehicles for longer."

He added: "Encouraging drivers to upgrade to the newest, cleanest, lowest emission cars - regardless of fuel source - is essential for the UK to meet its ambitious climate change targets.

Smart Governments must follow the facts, say Motor-Bikers.

Lembit Öpik, a former MP and now the Director of Communications and Public Affairs for the Motorcycle Action Group, argues there are remarkable inconsistencies in the Government's stated aim of banning the sale of new petrol-powered vehicles by 2030.

"The biggest threat to 'traditional' private transport is the proposal to ban sales of new petrol, diesel and hybrid vehicles by 2030. Ministers don't include motorcycles in statements about the ban; but bikers are extremely unsettled about the prospect that if all other petrol machines are banned, despite all logic, petrol motorcycles could be in the firing line too.

It is obvious the infrastructure won't exist for electric vehicles by 2030. Even if 10,000 charging points were installed *every single day* between 1st January 2021 and the 31st of December 2030, that would still deliver under 10% as many charging points as vehicles needing to use them. Unless affordable, rapid charging technology magically gets rolled out across the market, there simply will not be the infrastructure to support the electric vehicle fleet. On top of that, the absence of any standardisation means that a motorcycle, a van and a car may all need different charging connections.

At time of writing this text (June 2021), none of this has been addressed by the Government. I predict that, even by the end of 2024, it will still be unresolved. If so, there will be insufficient time to create a credible infrastructure to support the Government's bold ambition, and the plan is almost certain to then fail.

It's also obvious the British electricity system will be nowhere near 'green' by that time. Even though the demand that everyone goes electric with their private vehicles, there's no hint from the Government about how they'll provide the many gigawatts of *extra* power required to stop blackouts when demand exceeds supply. The extra load is estimated as being the output equivalent of at least three nuclear power stations. Again, we have yet to see any sign of a strategy to ensure a solid, steady supply to back up the political target.

"What really confuses motorcyclists more than anything else is the apparent absence of any joined-up thinking about what we can do now to achieve the Ministers' claimed goals." Lembit Opik, MAG

If reducing emissions and fuel use really are the target, why is there absolutely no discussion about 'modal shift' to less energy-using alternatives, like motorcycles and the promotion of more efficient fossil fuels, all of which is available now? Why do we hear nothing about their concerns that, like for like, electric vehicles are heavier than their petrol equivalents - so they use more, not less, energy? It seems the Government has developed tunnel vision.

Their obsession with electrification is all consuming, even if that costly goal is bad for the environment (as well as for lower earning families and the British economy). As things stand, they will fail on a target which would only serve to make long distance personal travel all-but-impossible, unless you are rich enough to buy a top-of-the-range electric vehicle, lucky enough to find somewhere to plug it in and ahead of schedule enough to wait for the time-consuming re-charge.

By contrast, a 125cc motorbike can easily get around 90 miles per gallon or better, and a typical 250cc machine can make the longer trips for little environmental footprint, and a much lower manufacturing footprint than any commercially available electric car on the planet.

So, while the wealthy can buy heavy, costly and energy sapping electric vehicles, those commuting public who depend on humble motorbikes are doomed to staying near home, tethered by their budget, the limits of technology and range anxiety.

There is also a worrying question of the effect of large arrays of batteries in the event of an accident, and subsequent fire. For many batteries, all you need for a fire is the presence of oxygen – in other words, a damaged battery becomes a huge fire hazard (which is why you must never pack your mobile phone in your hold luggage on an aeroplane).

The Motorcycle Action Group (MAG) is one of many groups ready, willing, and able to work with Government to create a sustainable, long-term transport strategy that keeps the United Kingdom at the forefront of technological evolution and economic viability.

We are not here to score points, only to stop own goals that will affect the millions of travellers in the UK who will lose out if Ministers try and force a dogmatic electrification agenda on the country, without any thought for the groundwork that is essential to give such an idealistic goal any chance of success.

The opposition to phasing out petrol, diesel and hybrid vehicles is not nostalgic or a refusal to move with the times. It's practical. The current proposals the Government is putting forward are unrealistic, tokenistic, and authoritarian, for no demonstrated health or environmental benefit. One practical alternative - modal shift from four wheels to two creates, is just one of many demonstrable examples of how to reduce in climate change gases and other emissions without praying for future technical miracles or breaking the banks of lower income earners.

It's not too late for the Government to take a more sensible approach to motive power and choice in personal transport – but it soon will be. We present the prospect to Government to work with those of us seeking to secure sensible personal travel solutions and a sustainable, organic approach to the evolution of motive power. If they ignore us, they set themselves to be condemned for forcing a politically motivated agenda on the entire country.

The price for that failure will be seen in the status of the country, economically, as it inevitably abandons the 2030 target to the cost of citizens and the status of the United Kingdom as a viable place to live and do business.

When it comes to motive power, it's time for the Department for Transport to follow the facts, not the fashion. It's time to shift towards real transport solutions, not trendy soundbites that sound like the moral high ground, but stall on the country's highways."

Lembit Opik - Director of Communications and Public Affairs for the Motorcycle Action Group

Net Zero and a question of honesty

In a measured article in Conservative Woman [23], Dr Benny Peiser from the GWPF says:

"AS public discontent and concerns over the astronomical costs of Net Zero keep growing, green Tories are beginning to fret that they may soon be facing a disastrous political backlash.

Writing in the Sunday Telegraph [28], former energy minister Chris Skidmore shows that he is unnerved by this likely prospect and warns that the Net Zero agenda will fail unless ministers are honest with the public 'about the scale of what lies ahead'.

Mr Skidmore's alert about the geopolitical risks of going green is certainly timely, as is his warning about the growing risk of power shortages if the UK were to follow a renewables-only policy. But when it comes to honesty and trust, Mr Skidmore would be well advised to refrain from claiming that the cost of offshore wind has come 'crashing down'. Empirical data shows that this is simply not the case [21].

As for the Climate Change Committee and the UK Government, how about coming clean and reveal the suspect Net Zero cost estimates they are trying to hide? [22]

After all, Mr Skidmore is right when he warns about the true risk Net Zero faces: 'Trust means working with people to achieve shared ambitions and potential, not working to a centralised plan without widespread support that will be destined to fail."

"FairFuelUK supporters will not take much more" says award winning public affairs campaigner, Howard Cox.

In what seems the myopic minds of transport and Treasury politicos, it is evident that "polluter pays" will unquestionably evolve to "user pays". That will of course, incense those well-off electric vehicle drivers who bought their characterless zilch emissions vehicles because they qualify for zero taxes and urban charges exemptions. There is a prophetic irony here, to when we were all told to switch to diesel from petrol over 20 years ago. A certain smugness will soon turn to a déjà vu reality.

4 out of 5 fossil fuel drivers, from FairFuelUK's detailed research, believe it is how much driving that takes place on our roads that should be costed, and not centred on virtue signalling ill-informed green time-honoured bias.

With the tsunami of political pressure to drive electric and to dump our fossil fuelled expensive assets, no one in Whitehall has published how the predicted fall in fuel duty income is to be replaced.

In whatever way Fuel Duty is to be restored, it is vital that everyone who uses UK roads must pay something to ensure our roads infrastructure is fit and safe for the 21st century. For ALL users not just the privileged few.

And let us not forget those essential vehicles, from emergency services to logistics. They should experience preferential fair rates of road levies, based on their positive contribution to society and the economy.

So, in order to preserve the Treasury's 5th largest income, developing a fair and viable world beating road taxation system must be based on objective unbiased consultation with existing driver groups such as FairFuelUK. It most certainly must not be originated through bullying from those ill-informed anti-car and celebrity very well-financed emotive environmental zealots that have been embedded into Whitehall's cosy well paid advisory elite.'

There seems to be a deliberate policy to divide road users under the cover of a well-financed ill-informed green agenda.

The Mayor of London in point, Sadiq Khan, remains hell-bent on driving a political and social wedge between cyclists and drivers. He's plotting a dangerous strategy against drivers with his recent colossal and unnecessary Congestion Charge hikes, the further extension of his cash grabbing pay-to-pollute emission zone -– and by fast-tracking the construction of free-to-use dedicated cycle lanes. All being implemented without consultation with businesses or that perennially main tax paying stakeholder, **UK drivers**!

The London Mayor knows there are votes in pushing cycling, fittingly borne out in a 2020 FairFuelUK survey of 25,000 road users, in which the contrast could not be starker. Some 87 per cent of dedicated London cyclists believe Mr Khan is doing a good job as mayor. To illustrate the growing divide though, just 3 per cent of drivers agree with them.

Now this abyss between carbon-based fuel users and cyclists has been further widened by the Prime Minister's recent gift of £2bn to cyclists – making this decision while knowing that £3bn has been lost in fuel duty during lockdown.

One might ask: where is the traditional Tory fiscal prudence now?

The economic recovery will falter if car use is squeezed.

Motorists did not vote for the Green Party in the General Election. But that is what we have got. Backbench Tories have told me they are uncomfortable with the government's focus on the privileged cycling few. Its complete disdain for (and lack of consultation with) the highest-taxed drivers in the world in the form of Boris Johnson's so-called "bold vision" for cyclists is a betrayal of huge proportions. Although only 3 per cent of journeys nationally are made by bicycle, their special treatment, using taxpayers and borrowed money, is set to decimate small businesses, the self-employed, low-income families and city economies.

The Prime Minister and his cycling advisors are out of touch with economic reality and majority opinion. Forcing hard-pressed drivers out of their vehicles through such costly virtue signalling is as contemptible as it is regressive.

For Boris' sake, it's good there is not an election tomorrow. His 80-seat majority would be crushed.

The growing conflict in road policy is being fuelled by the delusional belief that cycling is the ultimate transport solution. Anyone who cycles to work in London lives close enough to make that journey -– which means they are mostly well off and almost invariably white-collar.

Few builders cycle to work on a building site for eight hours of manual labour and then cycle home again. The same analogy can be made for nurses!

The PM's policy is a subsidy for the already well-off middle class. Number 10's special advisors (or SpAds) have got this one wrong too, with their promotion of combination cycling and train travel. Taking a cycle onto a commuter train steals passenger space for up to four people and so reduces their standing room on already overloaded trains by up to 75 per cent.

Moreover, at the first sign of inclement weather, cycle lanes lie empty. Only a few 'Tour de France' fanatics take to pedal power when the only option is to get soaked, frozen or blown around on the way to work.

Also, how many workplaces can tolerate dozens of staff queuing to the washroom to clean up before starting work?

Already the world's highest-taxed motorists, we make no apology repeating this fact. It rankles with British drivers, stuck in james, when the cycle lanes right next to them are empty and it is drivers and motorcyclists who pay for that road space.

It seems the Government is too scared to stand up to these uncompromising cyclists. Drivers were happy to coexist with cyclists, even though many on pedal power ignore the rules of the road.

Cycling had a chance to prove it could make a meaningful contribution to travel in this country if only its advocates would cut out their belief that they have a majority right to road user-ship. The Mayor of London's office now saying there should be a ten-fold increase in cycling is simply ridiculous. Cycling has a welcome place – but it's a relatively a very small place.

There is now a 'them and us' struggle steered by a very highly vocal minority of militant cyclists. Perennially demonised drivers are calling for common sense to close the divide once and for all. I am on record asking cycling leaders to work with FairFuelUK to create a long-term road user plan that benefits all road users, the environment, road safety and the economy.

All our campaigning group, FairFuelUK, asks is that we work together to produce a sensible long-term road-user plan, in full consultation with ALL stakeholders.

Yet, all too often, cycling groups reply with insults and a road plan for them alone. They do not seem to care if the elderly and disabled can't park close enough to get to their shops with walking sticks, or that families with small children need to use cars, and resent them even being able to unload outside their homes.

But here's another thing. In FairFuelUK's survey, 90 per cent of cyclists said they have relied on home deliveries during lockdown that arrived via diesel. Needless to say, most of these deliveries were **NOT** made by bicycle. This selfish opportunism is typical and must be challenged.

Drivers are voters too, and the question any political party has to ask itself is this – are we willing to lose an election for the sake of more cycle lanes? This riddled with holes transport plan must be urgently re-balanced.

As a long time one nation Conservative, I regret recommending the Tory Party in the Sun (see article) as the only party-political champion prior to their landslide General Election victory in 2019 that will support drivers. Would another Party have been any worse than our current virtue signalling Government? From all the evidence I don't think so!

Howard Cox
Founder of the FairFuelUK Campaign
https://fairfueluk.com

'White Van Man's £1,000 a year hike'

TRANSPORT

By HOWARD COX
Founder of FairFuelUK

A PATHOLOGICALLY anti-motorist political era will be marshalled in if Corbyn is elected.

Diverting scheduled road improvement funds to railways, for example, will fleece low-income drivers to pick up more of the tab for well-off suburban commuters, while cavernous potholes get even more perilous.

Corbyn's plans to hit drivers with regular increases in fuel duty – amounting to a punitive 16p per litre hike – will cost White Van Man £1,000 more per year to fill up.

The cost of motoring levelled on the world's highest-taxed drivers will skyrocket to help finance Labour's trillion-pounds retrograde jamboree.

It will restrict freedom of mobility and crash our post-Brexit economy.

The cash-hustling band of Left-wing reprobates just don't get it.

The nine-year freeze in duty has never been a cost to the economy. It generates extra tax revenue due to higher consumer spending, reduced distribution costs, more jobs, lower inflation, faster growing GDP and increased company profits.

Without that insightful Tory tax policy change to Labour's 2010 fuel tax myopia, the price of filling up would now be a crippling £1.80 per litre, rising at seven per cent a year.

A thriving low-tax economy for everyone, under a Boris Johnson-lead majority administration, is the only solution.

Howard Cox now regrets backing the Tory Party for UK's drivers, in the Sun before the 2019 General Election

Chairman's Summary

Let's look at the real world about the implications of this headlong dash to cut carbon dioxide emissions with personal transport in the firing line. The Department for Transport has announced its intention to ban the sale of new petrol-powered vehicles by 2030.

There is no chance there will be enough charging points by 2030 to supply the increasing number of BEVs required under the government's plan. There are insurmountable issues to be faced by those in flats or living in multiple occupation. Even if electricity supply can be overcome, the prospect of long extension leads from upper floors starts to look very real. It is clear proper charging points aren't there now and there is no serious plan to put millions of them in place by 2030. We would need at least 10,000 new charging points to be installed every single day between now and 2030 to get somewhere close to what will be needed under the plan. Less than 10,000 new municipal and street charging points were installed nationally in the first 6 months of 2021. There is an obvious feasibility and infrastructure failure and no plan.

> The question to be asked, outside of whether in environmental terms it is sensible, has to be - is it feasible?

The electric vehicle sector also hasn't agreed with itself on standardised batteries, plugs and connections. So not only do we not have enough charging points, there's a whole different set of them, just like the different charging connectors for different mobile phones. A starting point of standardisation of battery packs might have offered a solution, with energy stations of the future allowing for rapid automated exchange of a discharged battery pack for a recharged one. Instead, the manufacturers have embarked on a myriad of battery types with as many permutations of location of them within their vehicle models. We never attempted to supply petrol or diesel to our front door but are now on a path to try to do the equivalent of that to provide BEV motive power.

> Where will all the extra electricity come from to supply the power?

We've had decades of dither in the formulation of a 21st century energy policy. We already rely on interconnector power from Europe, derived from nuclear and overwhelmingly coal powered generation. This is before at least a doubling of electricity demand to provide the power for vehicles and to replace domestic gas boilers.

Grid level battery storage is touted as the answer to smooth out lumps and bumps in renewable generation covering many square miles across the country. The consequence is added demand for already rare metals and the potential for catastrophic failure.

Is all this sacrifice worth it? The second-hand vehicle market will be as good as ruined. Financially, it will hardly be worth replacing batteries at high cost in old vehicles, so I very much doubt there will be much demand for any vehicle approaching the current average of 8.4 years of UK vehicles. About one quarter, or 10 million vehicles, are at least 13 years old. It's unlikely that this will be the case in future; battery technology just doesn't seem capable of lasting so many recharges without serious degradation of charge capacity and therefore range, making the second-hand value of these vehicles little or nothing. This means more frequent replacement, the production therefore leading to further increases in the environmental footprint of the vehicle manufacturing sector.

As a rough guide, many manufacturers offer a 100,000-mile warranty for their battery vehicles, which means if you're a high mileage user, then you might find yourself in trouble with having to replace your batteries – or your car – much more often than at present. So far, there's no good solution to the problem of disposing of millions of tonnes of the contents of highly toxic electric batteries. Recycling facilities are virtually non-existent and the energy input to break them down and recycle the components truly vast often involving highly toxic chemicals to break down virtually impenetrable resins. The practice, to date, has been to store dead batteries in warehouses, underground or send to landfill. The longer-term leeching of toxic chemicals has not, to date, been addressed, or considered.

Also, electric vehicles are heavier than the equivalent ICE powered vehicle because they have to haul their batteries around; that's hundreds of extra kilos of battery flab, wasteful braking systems and road damage. This means they need more power, not less for the same journey and recharged following significant transmission losses from wind blade, solar array, nuclear power station or fossil fuel powered plant. We need more energy to provide less power through the wheels.

The safety record of batteries has yet to be addressed.

There are multiple stories of uncontrolled fires after accidents have led to the rupture of battery packs. Also extremely difficult to extinguish by conventional means providing a new headache for the fire service. It's the same reason you aren't allowed to put your mobile phone in the hold luggage on an aeroplane. Scale this up to grid level battery farms covering hectares and I have a legitimate cause for concern.

So, if the government has its way, you'll have to ferry your family around on an array of batteries composed of rare elements often mined under oppressive conditions, manufactured at huge environmental cost, ferried half way around the world, charged with electricity that may or may not have come from a renewable source, distributed along new copper cables mined elsewhere, smelted, transported and laid under a street near you at astronomical CO_2 use. You wouldn't want to have your family anywhere near the said batteries in the event of an accident or failure; the vehicle will have a limited range, longish charging times and energy supply problems, all because someone convinced the Government that this is good for the environment and cutting CO_2.

My rejection of the banning of petrol, diesel and hybrid vehicles is therefore a common sense one. It won't work, but people in ordinary jobs and living in ordinary homes won't be able to afford to make the switch either.

It's unrealistic, tokenistic and authoritarian and distinctly un-Conservative, for no demonstratable environmental benefit. And all the while ICE designers and manufacturers have stopped any possibility for technological improvements that we've seen, often in great leaps throughout the evolution of the internal combustion engine.

That's it – the 2019 petrol or diesel is as good as its going to get. No further improvements to performance, fuel consumption, nitrous oxide or particulate output. Why would engine designers expend vast sums on improving further?

I believe there's still time for a rethink on this policy. And that is what this report is about. But soon it will be too late. Ministers set themselves up to stand condemned for forcing a politically motivated agenda on the entire country. The price for that failure will be seen economically, as travel and power costs rise. And they will be felt by families struggling to keep up with these policies, only to discover that, inevitably, a future administration has to abandon the 2030 target at great cost to those who have tried to make the switch. The ban on petrol and diesel vehicles is just another example of politicians trying to show a new devotion to a new environmental doctrine, with this great sacrifice again falling on the poorest in society - not the richest. It's fine for the super-rich to buy their Tesla, but that's not the case for the just-about-managing majority who elected the Conservative Government.

It's all happening this way because an eco-cult has replaced logical transport planning.

The only thing that's saving the Government from electoral harm on this matter is the fact that no other major party has had the courage to stand up to the climate fanatics and say: **enough!!!**

Sooner or later the public will rebel against this madness. Better to have the rational debate now before we fully embark on a failed experiment.

I can but guess the response by the UK public as they watch new coal powered electricity stations proliferate across the growth economies of the world and with-it cheap energy while they huddle in the cold hoping for the promised output of heat pumps and pay off the loan of the BEV that they never really wanted.

Craig Mackinlay MP.

Chair APPG for UK Motorists and UK Hauliers

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No 10's 'net zero' carbon target is in disarray as Rishi Sunak baulks at the £1.4trillion cost of making UK a 'world leader' in green policies

- **Boris Johnson's 'net zero' emission goal is in disarray after Rishi Sunak objected**
- **Chancellor was expected to publish in the spring details of the green strategy**
- **But this has been delayed until the autumn amid mounting alarm about the bill**

By GLEN OWEN POLITICAL EDITOR FOR THE MAIL ON SUNDAY
PUBLISHED: 00:31, 25 July 2021 | **UPDATED:** 01:27, 25 July 2021

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Proposals to reduce emissions to 'net zero' as part of **Boris Johnson**'s plan to make the UK a 'world leader' in green policies have been thrown into disarray after **Rishi Sunak** raised objections to the eye-watering cost to the Treasury.

As part of the net zero plan –which would decarbonise the economy by 2050 – No 10 had been expected to publish in the spring details of the strategy for moving away from gas boilers ahead of **Glasgow**'s COP26 **climate change** conference in November.

But this has been delayed until the autumn amid mounting alarm about the bill.

What the majority of our constituents are saying

All action on the "zero carbon" schemes should be halted, pending a full, independent audit into the UK government's handling of the whole matter of carbon dioxide emissions since the late 1980s. This audit should be objective, critical, quantitative, unbiased, and non-political. It should cover, at least: the science; the burden of proof; Climategate; the rationale, risks and cost/benefit of the policies proposed; and the conduct of those involved, including scientists, economists, government officials and advisors, and politicians. ***Neil from Blackheath***

Appoint a government minister For Motorists to uphold, represent and enforce all our interests and put a stop to the "Hundred Years War on the Motorist". ***Zoe from Maidenhead***

Let the market decide. *The move to electric started at pace well before the govt mandated by law.* ***Darren from Stamford***

First a proper investigation into whether CO_2 really does affect climate. If so, what percentage difference would it make if the UK carries out the proposed measures in comparison to the rest of the world? **Christopher from Westminster**

Let people have a choice. We are not going to die tomorrow or in a hundred years or more. Technology will improve things, but we forget that nature has a way of correcting itself. ***F from Enfield***

Vehicle manufacturers have improved the pollution factor tremendously over the years. This could continue so what is the problem? ***Aimee from Swaffham***

I am sure that a better more environmentally means of using fossil fuelled vehicles can be found. This would mean that this draconian issue being forced upon us would not be necessary. ***James from Enfield***

Stop placating the Green Lobby and base government policies only on thoroughly researched & proven science, not the wishful thinking of those that wilfully ignore any evidence that contradicts their shibboleths. ***John in Sweden***

Start dealing with the 80% of emissions that do not emanate from road transport. ***Michael from Dublin***

What is the bigger picture of the environmental damage building and in the future disposing of the batteries? ***Paul from Sheffield***

Electric cars are not practicable in the UK until they have a 500-mile radius on one charge. They are too expensive for the 'normal' motorist and are the woke toys of the rich (at present).. The infrastructure for electric cars will not be in place in 9 years even if they start spending billions now. ***A from Stirling***

Electric vehicles still cause pollution. They plunder scarce resources & minerals to build batteries & we will have to upgrade all electricity suppliers to cope with the enormous demand. The national grid struggles now. ***John from Westminster***

Car technology for petrol and diesel cars has been getting better and cleaner all the time and would continue to do so. There is no need for this ban. EVs simply displace the emissions elsewhere. **Christine from Stevenage**

The implications electric cars will have on the environment is just as bad. Their batteries are poisonous and difficult to dispose of and we don't have enough electricity. Building more nuclear power stations is totally unacceptable to us and the environment. Plant trees along all roads and raise the driving age to 21....simple and effective. Stop building on farmland too. ***Sandra from Barnet***

Only places like London will have the infrastructure for electric vehicles. Rural UK doesn't even have a bus service fit for use. The rail service is expensive and not convenient for most of the country. When the rest of the country has the facilities London has then perhaps another fuel source could be discussed. On the electric vehicle proposal has the country any idea how it's about to dispose of redundant electric cells after they have reached their life cycle. ***Robert from Solihull***

The majority of UK power stations are powered by gas (which produces CO_2 and increases global warming) , and some coal, which is a non-renewable substance. The gas and coal is consumed to produce electricity, to provide the electrical energy required to charge increasing numbers of electric vehicles. The Government has utterly failed to adequately plan and construct enough future non-carbon fuel generation power stations, which will be required to provide additional electricity capacity, required by the introduction of electric vehicles; and also, the use of heat source pumps in industry and domestic homes, used to replace oil and gas fired boilers. Heat source pumps require electricity to operate!! ***Ian from Norwich***

Diesel engines are cleaner now than they have ever been and the infrastructure for electric vehicles is not in place in this country for everybody to climb on board the electric car bandwagon. Also how is all this extra electricity going to be produced when the national grid is under pressure now. ***Chris from Brighton***

Engines today following Government guideline are cleaner now than they have ever been. We were encouraged to buy Diesel Vehicles above Petrol and now they want to Ban Petrol AND Diesel. This does not make any sense! Many Diesel Vehicles are now CLEANER to run than Petrol. I Tow a Caravan at least 4 times a year. How am I supposed to do that with an Electric Vehicle? It will now work unless I am willing to charge a Vehicle every FEW Miles. ***Richard from Seaham***

Residual waste disposal of battery vehicles. Increased danger of spontaneous combustion of electric vehicles. Extra pollution from manufacture of batteries and generation of additional power station output needed for charging infrastructure. **Alan from Lichfield**

This is a highly complex issue, and it depends upon the way that car owners respond to the new situation and on what alternatives Government can offer. It is obviously highly undesirable to replace 40m petrol and diesel vehicles with the same number of EVs. Not to say impossible because of the lack of infrastructure. The cost of construction and extraction of raw materials would be catastrophic across the world. Especially unacceptable since cars are only used for less than 4% of their lives. So the real alternative is to move drivers away to other forms of transport and, where they have to use cars, to use shared vehicles. So, I would like to see a huge switch to Zipcar equivalents where one car can supply all the needs of 4, 5 or 6 households. Longer hire periods could be supplied by the normal car hire companies. Train + hire car could suffice for many family holidays. Shorter journeys need to be made by bike. Last mile deliveries need to be made by bike as well. ***Jon from Blackheath***

I don't think the Government have thought through the Impact on People on low incomes who rely on their car for whatever reason and would not get finance to replace this car or be able to cover the cost of having an electric point put in or the added cost of the electric ***William from Newton Abbot***

I think they are just trying to appease the green pressure (as they did do by letting the hypocritical Extinction Rebellion run amok, wrecking and defacing our towns) and that the UK is already doing what it can in keeping greenhouse gases down and in encouraging recycling. They have given no regard to people on low incomes (many who rely on their cars for employment), who cannot possibly afford electric cars. I also fail to see how electric cars are going to make a positive difference at all, when it is a known fact that the production and disposal of the batteries are set to do even more damage to the environment. If they wish to reduce emissions, they should do as they said years ago (then did nothing), and immediately remove all uninsured / untaxed vehicles from our roads. That would make a huge impact on air pollution and the freeing up of road space and would only affect people who should not be driving their vehicles in the first place, instead of unfairly holding hard-working, law-abiding citizens to ransom. I think the government need to put themselves in other's shoes and think realistically. We are not all on healthy wages and cannot just choose to splash out on new vehicles. I have never even owned a brand-new car; always having to buy used cars. Even this option would no longer be available to me, as petrol cars become non-existent. ***Kathryn from Ammanford***

They have not thought of anything at all. It's a total knee jerk reaction paying lip service to environmental pressure. A date plucked from thin air that is totally unachievable in the real world. Moving emissions from the tailpipe to the factory. A cursory gesture to make it look like they're doing something, something that'll affect normal people massively. **Simon from Woodford Green**

If everyone is running on electricity, then surely natural sourced power (green-energy) will not have the capacity to do this. In fact, I believe it will fall extremely short meaning natural fuel (coal, oil etc) or nuclear will still have to be required. I believe that at some point we will need to change but see that a lot further in the future than 2030. ***Liam from Burnley***

Do they consider the pollution caused by mining and transport of the materials used in the batteries for electric vehicles? Do they consider the pollution caused during manufacture of electric vehicles? Do they consider that these batteries have a very limited life, are not recyclable and will probably finish up in landfill sites? ***Phil from Camden Town***

How are we all going to charge these electric vehicles. How do we dispose of these batteries? Will any electric vehicle tow 3.5 Tons? How do they think an O.A.P is going to afford these vehicles? Second-hand Electric they have got to be joking. ***David from Bristol***

the electrical grid will be totally inadequate to cope with thousands more charging stations especially at the govt is envisioning going to wind power for supply. wind turbines are hopelessly inadequate, take 300 tons of concrete, per turbine, to install have only a n active life of 15 years max , to need replacement ... and are wind powered only about 29% of the time. Then imagine all the blocks of flats with extension cords draped from the tenth floor to the street if there is no kerbside chargers. ***Paul from Maidenhead***

Electric cars are a con & spin from the environmentalists. All you do is push the pollution back up the line to the power stations - which are predominately fossil fuel powered as we are not allowed nuclear as it is dangerous. Wind & water etc cannot provide enough electricity. So the power stations belch out more pollution to provide more electricity to make the cars 'green'. Hence, we generate more pollution, but we get around that by taxing the power stations & other energy providers a green/emissions tax as that make it better?!?!? ***Nick from Islington***

How much electric will be required to charge the millions of vehicles by 2030. Not very good for the environment. How are motorists who live in Tower Blocks, or with no close access to electricity going charge their vehicles. **Howard from Cardiff**

The UK emits 1% of global emissions yet be are being penalised by politicians eager to jump on the Green bandwagon without any idea of the implications to jobs and long term hardship this will bring to those on lower incomes. There is no climate change other than natural changes that the world has always done. ***Steven from Guildford***

There has been little consideration given to the Environmental Impact of Electric car Battery Production and far too little investigation of sustainable alternative fuels for internal combustion engines. I believe that Ammonia is now able to be produced cheaply and can replace Petrol and Diesel as an Environmentally Clean Fuel source that both can use with simple modifications. ***Anthony from Hayes***

Manmade climate change does not exist. Climate is cyclical not linear, millions of years of climate history available to the government shows this. The main driver of earth's climate is the sun, good luck with trying to affect that - government! ***Marion from Burngreave***

The Carbon footprint of all current electric vehicles is far worse than our current vehicles. There will be extremely serious problems with disposal of worn-out batteries. Serious problems of supplying the necessary components to make them and there have been considerable numbers of electric vehicles bursting into flame whilst being charged. In the UK considerable numbers of owner drivers are unable to park anywhere near their homes. How are these people supposed to recharge their cars? In Stroud where I live parking is becoming very difficult. ***Mike from Chippenham***

As a retired Vehicle Engineering Lecturer, I believe the Motor Industry can and is finding a solution to the pollution created by the internal combustion engine. Given adequate incentives I believe the development of other alternatives, such as synthetic fuels to replace petrol and diesel and hydrogen propelled electric vehicles, can all play their part in combatting pollution and global warming. Ideally, I would have thought that hybrid cars, which can be used as purely electric in city centres and other "sensitive" areas but use an economical petrol/diesel engine for all other travel, would be a better solution than pure electric vehicles with their high environmental cost to produce and replace, together with the inherent running problems of these vehicles. It would appear that the government have not looked at a multi-solution approach to the problem and see only the one solution, like they did when they encouraged and incentivised everyone to buy diesel powered cars. There is always more than one solution to a problem. ***Michael from Walsall***

I don't believe enough unbiased research has been done on this, I still feel that keeping an ICE car well maintained for as long as possible is better than scrapping it to go electric, it's purely an exercise to create jobs and make us buy new products we don't need. **Paul from West Bridgford**

In the event of an accident, Electric vehicles are PROHIBITED from being recovered by conventional breakdown personnel. Because of Health and Safety! Specialized Electrical vehicle breakdown personnel have to be located and sent for, often at huge delays, often keeping major road links closed down for even longer, with the frustration and hardship to all other road users. Electric? No way, Jose. ***Robin from Peterborough***

The increased load on the National Grid required to change to electric vehicles, will ultimately result in the need for polluting electricity generation as there is no way that the Grid could keep the lights on and charge the amount of vehicles on the Road - If we increase nuclear power the rods will have to be disposed and they are massive source of pollution (Where will well get rid of all the nuclear waste?). What about delivery vehicles and Lorries - how could electric vehicles cope with the loads and distances? ***Roger from Pinner***

I am a disability driving instructor, covering the whole of the southwest from Glous, Cheltenham, down to Weston Super Mare, and across to Swindon. Already I have had to stop going to Swindon due to the speed limits being continually slowed. It now takes to much time to get there and back, and thus not profitable. There is no other disability driving specialist to take my place, hence disabled people in Swindon will not ha everyone to train them. This will have a local economic affect. Glous Cheltenham will be the next area I have to stop going to as my local council is slowing more roads. Slower roads = more time = less profitability = stop. ***E from Bristol***

The government has no idea of what problems or cost it will have on the public or under paid pensioners who can't afford EVs. **M from Kettering**

This is more to do with propaganda and hype to calm the vocal and violent nasty (insofar as XR are concerned) lobbies. To repeat I worked with electronics a long time, so I understand the pitfalls but how many of the general public do? As we see the vast majority believing all they are told re lockdown and restrictions (with no idea that the treatment is doing far more damage than the virus) but when you dig and seek out knowledge from those not on the public sector (cosy) payroll with gold-plated pensions to come, you find out a different story. As with this virus and its effects I do my own homework. Ask any auto electrician about the ECUs and what problems they can cause when they go faulty and the cost of their replacement. ***Roger from Manchester***

We are jumping headlong into another fiasco, love the electric dream and want them to be a success. but not just for a few billionaires to feel happy and less guilty about the future. Overpriced, overhyped and not an option for the masses. Henry Ford is spinning in the grave as the affordable EV isn't made yet that will take you a good distance. Motability cars are going over to electric albeit limited range models. Are we paying for them to get more on the road, and will they become a toxic nightmare? I see that the emergency services programme about the transporter fire has been taken off the TV ad gap. Fire chief says Battery fire. Lots of worries and should I trust one enough to keep goods in one? Pets etc. ***Terence from Burngreave***

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Just one of the thousands of similar comments from UK road users to the Government's 2030 ban and EV Policies

"This is all very well for metropolitan elites living in the centre of London, but for most people a car is not just a way of life, but an essential part of day-to-day life in the UK. It is strange telling us we must walk and cycle, but for most if not all "normal" people with jobs and lives, this is not really possible.

Since there is only 8 and a Half Years to go till the full 2030 ban, I do not think this is anywhere near enough time for society, industry, and government to adjust to this change in transportation. Hardly anyone has a charging point at their house, where will the electricity come from to charge 30M+ vehicles since most of our power stations have been shut down or mothballed, and we know it will never come from wind power, so that nullifies the argument that electric cars are green.

We have an existing infrastructure for oil and petrol so why not heavily invest in e-Fuels and fuel catalysts, that means the existing infrastructure could be used easily, rather than the huge cost and disruption of mothballing the fuel infrastructure, and the cost and disruption of adapting and rebuilding the economy to facilitate electric driven cars.

*How many subsidies will be required in that short timeframe to force people to buy electric cars, and what will happen to all the petrol/diesel cars, they will be useless, and all have to be recycled. People will potentially lose money on those car purchases as no one will want to buy them. This will start happening very soon, not in 8 Years as people will see those cars as worthless to buy. "**AS from Paisley***

The Government must listen and act on majority opinion and….

- ✓ Publish a full and detailed independent cost/benefit analysis on the impact of the ban in the sales of new diesel and petrol vehicles in 2030 and to justify the Government's un-consulted decisions to push UK's 37m drivers to drive Electric Vehicles.
- ✓ Explain how £35bn of fuel taxes will be replaced and collected in the move to ban diesel and petrol fuelled vehicles.
- ✓ Remove the threat of fossil fuelled vehicle bans and leave vehicle manufacturers to evolve clean fossil fuel technology.
- ✓ Set up a new road user advisory group made up of experts representing grass root Motorists, Cyclists, Taxis, Van Drivers, Truckers, to help advise on future Government Road transport policy
- ✓ Build dedicated cycle schemes AWAY from existing roads to reduce congestion and ensure safety for ALL road users.
- ✓ Investigate thoroughly usage of fuel catalysts/additives proven to cut emissions and fuel consumption in fossil fuels, that are available now, as a legal requirement to be in bulk fuel deliveries to all forecourts. Similar to successful clean air policies adopted in the US State of Texas and elsewhere.
- ✓ Investigate and invest in e-Fuels that are carbon neutral and use recycled CO_2 from the atmosphere to make combustible fuels that can be used in existing ICEs.

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