ANALYSIS REPORT AUGUST 2024 Revision

Will Labour FAIL its transport decarbonisation test?

& Why that matters for the UK climate crisis

In 2008 the last Labour government enacted the Climate Change Act, which should have initiated a process of incremental annual carbon reductions in every emissions sector. But for the period of Conservative governments since 2010, up until the 2020 Covid pandemic, Transport emissions not only did not reduce at all below the Act's 1990 baseline. Their expansion was actually promoted by deliberate policies applying to both Roads and Aviation. Consequently the entire first half of the 60 year period to Net Zero in 2050 has been lost, with transport now by far the largest emissions sector.

This is the situation Labour will inherit in government should it win the next General Election. The scale of the UK's transport emissions problem is huge. So far Labour has recognised that 'to deliver Net Zero it is essential to decarbonise transport'. But, beyond that initial declaration, how exactly does Labour intend to tackle this task of unprecedented difficulty, as the clock ticks relentlessly down? Surely preparations for that need to be made in advance of the 2024 General Election? So ...

Will Labour PASS or FAIL its 'transport decarbonisation test'?

The reason the question is asked is that so far Labour itself has NOT disclosed the answer.

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This detailed Analysis Report accompanies the short Issues Briefing which summarises its conclusions. Download here.

August 2024 Update

This report, originally published on 19th May, is the only comprehensive assessment of Labour's intended approach - in the period before, and now after, the General Election - to the so far failed decarbonisation of the UK's largest emissions sector: transport. Recent assessments of this topic, made by such as IPPR and Green Alliance reach similar general conclusions[1], but this report goes further in situating its analysis in the context created by the 3rd May court judgement in favour of Friends of the Earth's second legal challenge to the lawfulness of the Conservative government carbon budget delivery plan (CBDP). That has to transform Labour's approach to delivering future transport decarbonisation, because the sector will now be forced to make a fundamentally significant emissions reduction contribution to the government's task of preparing a lawful CBDP by May 2025.

The report's **end-of-June** Update assessed the content of the Labour manifesto published on 13th June. Whilst noting some positive steps, for example it confirmed that the EV phase-in date will be reinstated to 2030, it nonetheless concluded - for the emissions sector which has made no effective decarbonisation since 1990, with the largest policy 'gap' - that the (as it turned out) incoming Labour government 'has not made any explicit decarbonisation commitments and has more than hinted that it's heading in the wrong direction. … This position is implausible and contradictory'. In this **August** Update the report's text has been revised to include the detail of what the Labour manifesto committed to - or omitted - and then the actions taken by the new Labour government and transport ministerial team in their 'First 30 Days' in office. Whilst the transport technical press contained extensive coverage of those announcements[2] - particularly concerning the VFM reviews of transport infrastructure schemes that have been commissioned - one element was still missing: how decarbonisation would be integrated into the DfT policy making process over the coming months.

Transport Secretary Louise Haigh has enunciated two versions of the five commitments which will shape that process - the 5 key priorities of 10th July, and a more specific list on 18th July linked to the 5 transport bills in the Kings speech.[3] The first of these stated that 'the critical thread weaving through every priority should be greening our transport networks': a principle which would be powerful if it was then extended down through the policy hierarchy'[4]. Yet when on 30th July Haigh came to announce her intention to 'develop a **new long-term strategy for transport**, developing a modern and integrated network with people at its heart', two words were yet again excluded: '… with people and decarbonisation at its heart'.[5] In practice carbon reduction will have to be the dominant determinant of that 'new long-term strategy for transport', in a process about which this report has previously made extensive suggestions - *pages 58, 62 and 65 onwards*.

As of August 2024 this report's principal conclusions are that:

- the Labour government's approach to transport decarbonisation has **still not been disclosed**.
- Consequently it is not known what is the government's intention towards the inherited, carbon generating **policy frameworks** for **Roads** and **Aviation** embedded within the Conservative's Transport Decarbonisation Plan, which are all '**not fit for purpose**'. If they remain in place it **will not be possible** for Labour to pass its 'transport decarbonisation test'.
- The 'new long-term strategy for transport' must have **decarbonisation objectives** at its heart; contain **policy frameworks for all modes that are demonstrably compatible with NZ**; and be built from transparent **scenarios and a modelled accelerated emissions trajectory**. It should be prepared in **conjunction with the Climate Change Committee**, and in **compliance with its recommendations**.
- From that basis the DfT would be able to identify an **increased contribution** to the 'effort share' allocation within the ES&NZ Secretary's process to prepare **a lawful carbon budget by May 2025**.

Executive Summary

*May 2024: Because the transport decarbonisation narrative will continue to evolve up to the General Election and then through the 'First 100 Days' of a Labour government a revised edition of this report will be available to download in June, and then August. The accompanying short Issues Briefing can be downloaded **here**. A briefing for Labour MPs circulated on 21 August is **here**. Update articles are also available on the Transport North website.*

1. The availability of sustainable and affordable transport is important for every aspect of our society and economy: for businesses, communities and individuals. But transport is also the **UK's largest carbon dioxide emissions sector** which, in the decade before Covid and across the entire first half of the 60 year Net Zero period between 1990-2050, has shown **no reductions** at all. If Labour is elected to government in 2024 it will, with now just 25 years remaining, have to institute a decisive change in the direction of the transport decarbonisation pathway. This report explores the multiple reasons why that **cannot be accomplished within the existing policy frameworks** for the two transport modes responsible for most carbon emissions: **roads** (**66%** of annual transport emissions) and **aviation** (**23%**); so 89% of the total.

2. Developing and implementing policies to secure a transport decarbonisation pathway will contribute to the legal requirement to achieve Net Zero by 2050 established by the Climate Change Act 2008. The statutory plan required under S.13 of the Act was firstly the Net Zero Strategy (October 2021) and then the Carbon Budget Delivery Plan of March 2023. However **both have been overturned in the courts**. At the moment (May 2024) Labour has a commanding lead in the opinion polls, which has stayed solid over the last 18 months. If that lead was to be maintained up to the 2024 General Election the future implementation of transport decarbonisation would fall to Labour to undertake, with this emissions sector central to the responsibility of the next government to formulate a new and lawful UK Net Zero Strategy by May 2025.

3. To assess and assist Labour's preparedness to undertake the exacting task of organising and delivering transport decarbonisation this report has drawn up a list of questions - in fact there are 55! Each question about a particular decarbonisation topic provides background information, policy analysis and sources. In particular they ask about Climate Risk**:** Is climate risk over the next 5 years likely to reduce, or alternatively increase, because of action to be taken by Labour; and the Contribution of Policy Frameworks**:** Is the contribution of those underlying frameworks either to constrain or potentially to accelerate the rate of transport decarbonisation. Together, awareness of and having policy responses to these **55 Questions constitute a 'transport decarbonisation test'**. The purpose of the report is to assist Labour policy and decision makers in understanding whether *before* government they are able or intend to pass that test by successfully delivering transport decarbonisation when *in* government.

4. **Scale of the future decarbonisation task**: In 1990, the baseline set by the Climate Change Act, total transport emissions were **153 MtCO2e**. By pre-Covid 2019 they had **increased** to **169.7MtCO2e** or **+11% above** the baseline. As a consequence transport emissions had increased their share of the UK carbon budget between 1990-2019 from **18.3%** to **34.5%**, close to doubling. Thus in the first half of the Net Zero period 1990-2050, **transport emissions have not reduced at all**, requiring that complete decarbonisation to Net Zero will now have to be achieved in just half the time. In 2023 transport emissions of **149 MtCO2e** represented **35.2%** of the UK carbon budget.

5. This situation has occurred because of the failure of the Department for Transport (DfT) over the last 2 decades to progressively reduce transport emissions; instead roads and aviation demand and capacity have been promoted upwards as a matter of policy. In December 2020 the Climate Change

Committee established a transport decarbonisation pathway that requires a reduction from 167MtCO2e in 2019 to **118MtCO2e** by 2030; a reduction of **49MtCO2e** or -30%, a milestone now just 6 years away. However the 2030 target was an aggregate of two quite different pathways: requiring radical reductions in road emissions made possible by the transition to electric vehicles from 2030/35, but almost no reductions whatsoever in aviation (and shipping) emissions.

6. Moreover in the decade before 2019 transport emissions had reduced by just **3MtCO2e** (from 170.2MtCO2e to 167.2 MtCO2e) meaning that there is little established downward momentum and practice available to be accelerated. That pattern is also replicated at regional and local levels. This circumstance has come about because of the mostly unnoticed impact of a number of policy frameworks, for roads and aviation. Worse still, these **two dominant policy stances have now been inserted within the DfT's Transport Decarbonisation Plan** (TDP - 2021), the strategy which is meant to be driving downwards the carbon emissions that those two modes have inflated.

7. **Roads**: 2019 road emissions at **111.4MtCO2e were still level with the 1990 baseline** (+0.5% above) but are projected to **reduce to 66MtCO2e in 2030** (**so 41% below 1990**) and just 31.5MtCO2e in 2035 (72% below 1990). They then drop to single figures by the 2040s. But whilst the transition to EVs will have begun to bend the roads emissions pathway downwards, this will not be enough. That reduction will be eroded by the upward pressure resulting from the continued influence of three existing roads policy frameworks - the national road traffic projections, the National Networks national policy statement, and the Road Investment Strategies. These underpin major annual programmes of new road construction that: induce more road traffic; undermine more sustainable modes; often represent poor value for money; and can't be challenged on climate grounds. The next government will need to revise these frameworks if road transport is to be made compatible with Net Zero, but at the moment Labour's intentions about roadbuilding are unknown. Reallocating capital expenditure away from new roads schemes provides a major opportunity to boost spending on other priorities.

8. **Aviation**: For two decades DfT policy has deliberately promoted the expansion of passenger demand and airport capacity regardless of the emissions consequences. As a result in **2019 emissions** were **+125% above** the 1990 baseline, and are projected to be **+108% above** in 2030, and still **+13.5% above** in 2050, consequently achieving **no decarbonisation at all** over the entire Net Zero period**.** The Climate Change Committee is now explicitly clear that continuing aviation expansion is incompatible with decarbonisation. However 2022's Jet Zero Strategy (JZS) policy framework is still incurring increased climate risk. It relies almost exclusively on technological interventions which cannot be effective in the next 10-15 years, whilst demand management interventions, which can act quickly against climate risk, have been deliberately excluded. Almost unnoticed, the JZS has removed all the regulatory levers by which passenger demand, airport capacity and therefore emissions can be managed. To become Net Zero compliant an incoming Labour government would have to radically revise the JZS policy framework. There are no indications this is being contemplated.

9. **Public & Active Transport**: At present Labour seems to be suggesting, for example in The *Clean Energy Superpower* briefing which takes forward its climate 'mission', that sufficient transport decarbonisation can be achieved mainly through improved public transport alone. Public transport modes represent a small proportion of UK travel so even if usage and occupancy rates exhibited radical improvements this would not be able to abstract sufficient carbon removals from the much larger road and aviation emissions sectors. It's likely that there will be limited availability of capital and revenue funding for expenditure commitments either already made by Labour or contracted by the Conservative government.

10. **Implementation Approach**: Transport decarbonisation is uniquely complicated because travel crosses planning and governance boundaries. So if action across all levels - from UK > devolved administrations > subnational transport bodies > combined authorities/counties > local councils - isn't coordinated within an implementation framework specifically designed to align strategies and programmes, then it's almost inevitable that the task of organising decarbonisation will falter or fail. The imperative for carbon reduction required the TDP process to quickly think through what might be a new 'wiring diagram' to deliver its targets. However the TDP was not accompanied by an implementation framework setting out when/how its delivery would be undertaken. Of its 78 'headline' commitments it's not known how many have been implemented and with what carbon impact. Local Transport Plan guidance meant to be focused on decarbonisation was first delayed for 2+ years, and has apparently now been cancelled.

11. **Delivery Risk**: Successful judicial reviews of the government Net Zero Strategy (NZS) and the successor Carbon Budget Delivery Plan (CBDP) - culminating in the recent 3rd May 2024 Net Zero II judgement - have established a requirement that the delivery risk attached to decarbonisation implementation must be assessed and acted on. Independent expert analysis has established that in the period up to the March 2023 Carbon Budget Delivery Plan, the policy ambition to achieve the required tonnage of roads decarbonisation diminished substantially. For aviation the Jet Zero Strategy deliberately promotes increased demand (52% by 2050) and consequently also delivery risk. The implications of the Net Zero II judgement are yet to be crystallised but are likely to involve a testing of the relationship between **the increased climate risk generated by transport policy** and the requirement for a next Labour government to produce a lawful NZS, and a determination of whether the current unlawful position of the CBDP **renders components of the transport infrastructure projects process unworkable** until a revised Plan is found to be lawful after May 2025.

12. A **limited number of Department for Transport (DfT) roads and aviation policy frameworks are incompatible with achieving Net Zero**. At present they act as roadblocks against transport decarbonisation, but if amended could be its accelerator. They, along with related frameworks in other departments, will need to be revised urgently as essential early prerequisites for successfully implementing decarbonisation across the next Parliament.

National Road Traffic Projections: revised to now include scenarios compatible with accelerated decarbonisation.
National Networks national policy statement: limited revision to allow the assessment and independent challenge of properly quantified carbon impacts of new roads schemes.
Road Investment Strategy (and its Delivery Plan): revised to remove schemes not compliant with accelerated decarbonisation.
Jet Zero Strategy (and associated documents): will need to be withdrawn and radically revised because incompatible with accelerated decarbonisation.
Airports national policy statement: revised to align with an NZ-compatible policy framework.
Transport Decarbonisation Plan: revised to remove elements promoting roads & aviation expansion and to include an accelerated decarbonisation pathway with mechanisms to drive it forward and provide transparent monitoring.
National Planning Policy Framework (NPPF): targeted revision so that it does 'shape places in ways that contribute to radical carbon reductions'.
Regional & local implementation framework: This will need to be remade based around the mediating role (in England) of subnational transport bodies, upwards to DfT national decarbonisation strategies and downwards to city regions/counties/local authority implementation programmes.

T**hese frameworks are not 'fit for purpose'** and it's difficult to believe that an incoming Labour

transport ministerial team could begin its work without first testing whether the DfT's principal policy frameworks affecting decarbonisation are indeed Net Zero compatible.

13. **Revising these policy frameworks is the best option for accelerated transport decarbonisation** Recognising the likely constraints on public expenditure already signalled, reviewing and revising this limited number of little known transport policy frameworks would be the **least expensive**, the **least controversial**, the **most effective**, and the **most certain** way of getting and keeping the transport decarbonisation pathway on track. Revising them would be the quickest, lowest-cost way of boosting Labour's ability in government to quickly assemble its transport decarbonisation effort; it would open up the space for the implementation changes required to accelerate carbon reduction at every level and with multiple co-benefits; and allocate responsibility for developing and paying for decarbonisation actions correctly to the actors responsible for the pollution. On the other hand **if these frameworks are left in place they will continue to drive emissions in the wrong direction,** jeopardising the achievement of critical 2030 milestones and targets, and those beyond them.

"Reviewing and revising a limited number of little known transport policy frameworks, as this report recommends, would be the least expensive, the least controversial, the most effective, and the most certain way of getting and keeping Labour's transport decarbonisation pathway on track"

14. As a **'call to action'** - to put the analysis of this report into practice - it recommends conducting a two stage process: Stage 1 in the *pre*-election period and *before* government: **developing a comprehensive transport decarbonisation analysis** leading on to scenario development; and then Stage 2 in the *post* election period and when *in* government: the **construction of more detailed policy scenarios and intervention options** that would form the building blocks of mode by mode burden sharing towards a specified and quantified carbon reduction pathway, and finally programmes of interventions. The template for a **transport decarbonisation scenario** is described (appendix 1) which seeks to optimise criteria of minimised cost, public acceptance, equity, the 'polluter pays' principle, and the ability to accelerate carbon reduction. Such a decarbonisation scenario is likely to be broadly positive against key criteria.

15. The report **very deliberately does not propose particular solutions or interventions** to the multitude of problems it has assessed; not as a tactical manoeuvre in order to evade the public controversy and attacks from political opponents and their media allies that characterise this issue, but because it follows from essential methodology. It would be premature (within stage 1) to be identifying such interventions, or indeed back to front. The stage 1 thinking should instead **be fed into the 'access talks' with civil servants, to allow them to begin to think through what major policy options and scenarios in government might be**, and how those interact with other departmental areas, other emissions sectors, and the 5 Labour 'missions'. It should also be the subject of discussion involving various levels of Labour stakeholders: the shadow ministerial team, its national policymakers, its MPs (and PPCs), city region mayors (and their teams), county and local leaders

16. As at the time of publication (May 2024), and having completed this in-depth assessment, it seems that the **answer to the question *Will Labour fail its transport decarbonisation test?* is more likely to be Yes** rather than No, for all the detailed reasons described throughout the report. This is a very serious and disappointing judgement to have reached. Labour absolutely could pass its transport decarbonisation test if it adopted the 'call to action' being suggested. And it **must** do so, otherwise the UK's pathway to Net Zero will be put in peril. But preparations to achieve this have to start now. They can't wait until Labour ministers walk into Great Minster House on the first day of a new government. **NB this conclusion has now been updated as of August - see page 3.**

Exploring the Report

Quick Read: Maybe start by downloading the separate Issues Briefing which accompanies this report. Look through the questions (listed in the appendix) and examine any that interest you.
In Detail: Work your way through the sections (and their information sources) that particularly concern you. Consider the case for revisions to the underlying policy frameworks undermining transport decarbonisation *page 54*
Comment on the data: the report cites statistical data from numerous sources which use different assumptions about e.g the quantity of carbon emissions projected in a particular future year. Such minor differences do not detract from the overall analysis being presented.
Endnotes: All page numbers cited are for the pdf version of the document. Download a separate Endnotes document here so you can switch easily between the Report and the Notes.
Further information: contact info@tranportnorth.org.uk about any question or issue. Any factual errors can be reported and will be corrected.

Abbreviations *AEF - Aviation Environment Federation; CBDP - Carbon Budget Delivery Plan; CB - carbon budget e.g CB6 the 6th Carbon Budget 2033-37 CCA - Climate Change Act; CCC - Climate Change Committee; ETOs - Environmental Transport Organisations grouping; JZS – Jet Zero Strategy; MtCO2e - million tonnes of carbon dioxide equivalent (standardised measurement of greenhouse gases) NZ - Net Zero; NZS - (the government's) Net Zero Strategy; TAN - Transport Action Network; TDP - Transport Decarbonisation Plan; TfN - Transport for the North; TQL - Transport for Quality of Life consultancy; UKCB - United Kingdom carbon budget.*

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Introduction

This report - and its accompanying Issues Briefing - has been prepared by the **Environmental Transport Organisations** (ETOs) grouping, a coming together of transport campaigners from across the North of England, covering every mode and region but particularly focused upon accelerating carbon reduction. It has no party political affiliation. In 2018, in our engagement around Transport for the North's (TfN) initial strategic transport plan (STP), we suggested that its initial failure to include a 2008 Climate Change Act-compatible commitment to decarbonise transport was a major failing, possibly even rendering the STP unlawful. To its credit TfN eventually accepted these arguments, paving the way for their ground-breaking Decarbonisation Strategy in 2021.

Noting that, in autumn 2023, 4 out of 5 MPs in the Labour shadow ministerial transport team represented northern constituencies[6] the ETOs decided that, as we approach a general election in 2024 and with the prospect of a new government, it would like to make another contribution to regional and national policy on the critical issue of transport decarbonisation. That is the purpose of this analysis report.

The 'Transport Decarbonisation Test' explained

The term 'transport decarbonisation test' has been devised for this analysis report; it's not part of any formal government policy assessment. The report has broken down its examination of the issues relating to transport decarbonisation - principally relating to the roads and aviation sectors -

into a list of questions; in fact there are 55! Each question about a particular decarbonisation topic provides relevant data and background information, policy analysis and sources. In particular the questions are interrogating the treatment of climate risk and the contribution of underlying policy frameworks, either to constrain or potentially to accelerate the rate of transport decarbonisation. Together, awareness of and having policy responses to these **55 Questions constitutes a 'transport decarbonisation test'**, to which a political party seeking power should know the answer. In the accompanying **Issues Briefing** the test is summarised with this question: 'How from their first days in government will Labour set and then implement a transport emissions reduction pathway and policy framework which ensures that critical decarbonisation targets that have to be reached by 2030 will actually be achieved?'

The argument of the report is that, as we approach the date of the general election, Labour - as a political party bidding for power - should have been able to demonstrate convincingly that it knows a great deal about most of the questions, is therefore able to pass the test, and absolutely intends to do so when in government. **At the moment that is not the case**. 'To deliver net zero, it is essential to decarbonise transport', the Labour Party national policy forum correctly concluded in June 2023.[7] Transport is by far the largest single carbon emissions sector, so if its attempted decarbonisation were to fall short or fail, then so will the overall UK pathway to Net Zero by 2050. That's why asking whether a next Labour government is sufficiently prepared to pass the transport decarbonisation test becomes fundamentally important.[8] Thinking about how it might do this can't wait until a Labour government actually comes to power. The question must be addressed **now** whilst Labour's plans for government are being developed and prioritised.

'Decarbonising transport is not easy. There will be difficult and potentially unpopular choices ahead. We can only hope to make progress with such decisions if everyone understands the magnitude of the challenge we face' *Prof Greg Marsden, Leeds University Institute of Transport Studies May 2023* [9]

'The Conservative's broken transport system is failing people, our economy and our path to decarbonisation. @UKLabour will deliver fundamental change.' *Tweet from Louise Haigh MP, Shadow Secretary of State for Transport 6th September 2023*[10]

'The challenge to the next Government will be that with every passing month and year of insufficient action, the task gets even harder. A different pathway for transport is urgently required.' *Prof Greg Marsden May 2024*[11]

'We're in a climate crisis'. *Louise Haigh, Transport Secretary Louise Haigh 20th August 2024*[12]

It's also the reason why this report is intended to be constructive, providing Labour with the information to think through the difficulties and complexities associated with the transport decarbonisation process, about which many stakeholders may not be aware. Crucially the report only asks questions and is, quite deliberately, **not** proposing its own preferred set of answers and 'solutions'. That is the responsibility of Labour policymakers and shadow ministers to then undertake as a next stage, because the right mix of interventions can only be assembled, and their impacts weighed, after there is agreement as to what is the scale and complexity of the problem that has to be fixed. But in its last section it does identify a process and template transport decarbonisation scenario (appendix 1) whereby Labour could translate its initial answers to the report's questions into a coherent policy approach.

One thing is clear. The evidence for what happened to the transport emissions pathway during the

period of Conservative governments from 2010 onwards, and as a result of the policies they pursued, demonstrates conclusively that the Conservatives have certainly **failed** that Test, as finally confirmed by a series of decisions leading up to, at and after the 2023 party conferences.[13] With that ominous verdict looming over us, it becomes all the more essential to point out that Labour must not continue down that same road.

What's known about the Labour approach to transport decarbonisation?

NB - This report was written before the General Election, the Labour manifesto was published in June, and a Labour government entered office in July. Whilst some sections of the text have been updated after that governments 'First 30 Days' in power, others will still reflect what was known in May So far a constant feature of Labour statements and commitments relating to transport has been the focus on the role of public transport:

'To deliver net zero, it is essential to decarbonise transport. Labour will secure an efficient, integrated and affordable transport system that reduces carbon emissions and drives economic growth across our country. We will work with devolved governments and local authorities to promote good public transport across the nation to cut emissions. We want a world-class green public transport network, playing its part to help meet our net zero ambitions'.[14]

The implication seems to be that the actions proposed for rail (renationalisation and investment) and bus (franchising and 'local control') would be sufficient in themselves to produce the scale of decarbonisation required, although no quantification is adduced to support this.[15] On the other hand there have been no pronouncements concerning the two emissions segments responsible for the majority of transport CO2: **roads** (66% of annual transport emissions) and **aviation** (23%); so 89% of the total. Troublingly Labour leader Sir Keir Starmer, in his October conference speech and subsequently, appeared to uncritically include infrastructure investment, including roadbuilding, at the heart of his priority mission to 'get Britain building again' - or alternatively 'raising Britain's productivity growth'[16] - any obstacles in the way of which would need to be 'bulldozed'.

It is the silence, or worse, on those two areas - roads and aviation emissions, and future policy - together with the issues of decarbonisation coordination, and climate and delivery risk, that the questions in this report are principally asking about.

The Questions explained

The main part of this report comprises a sequence of Questions - some actual questions, others just statements - that step-by-step walk policymakers through the sequence of issues that emerge if the objective is to tackle transport decarbonisation by policy change. For each question the background analysis is explored, with sources providing further information included in detailed endnotes. At the end of each section there's a summary about **Climate Risk**, **Policy Frameworks** and **Implications for Labour**. **Questions 1-5** are about the scale and quantification of the transport decarbonisation problem. **Qs 6-22** consider roads policy and investment (the 'roads programme'). **Qs23-40** aviation policy. **Qs41-43** public & active transport. **Qs44-49** the implementation of decarbonisation at all levels **Qs50-54** decarbonisation delivery risks. **Q55** the need for revision to the policy frameworks affecting transport decarbonisation. Finally there's a review of the issues and options available to Labour as it considers its approach to decarbonisation. The sheer number of these questions and the issues they cover reveal the scale and complexity of the work the Labour party needs to have undertaken before reaching government in order to begin to face up to its 'decarbonisation test'.

Scale of the transport decarbonisation problem

Q1 What is the scale of the current transport carbon emissions problem Labour would be confronted by in government?

Emissions within the ambit of the Climate Change Act 2008 (CCA) are measured in millions of tonnes of greenhouse gases, expressed as their equivalence in carbon dioxide: MtCO2e.[17] In 1990, the emissions baseline set by the CCA, total transport emissions - aggregating national and international surface, air and shipping emissions - amounted to **153MtCO2e** out of a UK carbon budget (UKCB) of **836MtCO2e**; thus **18.3%** of the UKCB.[18] Under the CCA, transport emissions should have been reducing from that baseline tonnage, annually and incrementally, like those in almost every other sector.[19]

But that did not happen. By pre-Covid 2019[20], nearly 30 years later, total transport emissions had instead increased to **168 million tonnes CO2e**, thus **+10% above** the 1990 baseline. Seeing that by 2019 the UK carbon budget as a whole had reduced to **492MtCO2e** (a fall of 41%) - as other sectors and the UKCB as a whole had got on with the task of decarbonising - transport emissions in that year now took up **34%**, more than one third, of the UKCB and by far the largest emissions sector.

The Covid pandemic did then result in a dramatic fall in transport emissions - down to 122.2MtCO2e in 2020 - but seeing that this reduction was not policy driven they could be expected to rebound, and did: to 130MtCO2e in 2021, 151MtCO2e in 2022, and **149 MtCO2e** in 2023. Finally therefore, by last year transport emissions were now just a fraction below the 1990 baseline of 153MtCO2e.[21] UK emissions as a whole had however by then reduced to 423.3 MtCO2e, effectively half that of their 1990 baseline. Because transport demand continued to recover in 2023 - the volume of road traffic has effectively returned to 2019 levels, as have aviation passenger numbers (see endnotes 157-8) - 2023 transport's share of the UK carbon budget consequently increased to **35.2%,** up another 1% in a single year.

The percentage of total transport emissions within the overall UK carbon budget is frequently underreported due to the practice of displaying the emissions tonnages for the individual transport modes (surface/aviation/shipping), or domestic/international, separately rather than aggregated – as 'total transport emissions'.[22] One of the purposes of this report is to correct that significant misrepresentation. The formal treatment of international aviation & shipping emissions (IAS) within these numbers is explained in endnote 155.

If an individual emissions sector is so large, occupying such a significant proportion of a continually reducing UK carbon budget, and with the totality of its magnitude carefully disguised, this is a difficult starting point for policymakers having to understand the scale of the decarbonisation challenge they have to confront as a matter of great urgency in the next government.

Q2 The transport emissions pathway has flatlined over the previous decade, with no established track record of reductions

Over the decade before Covid, total transport emissions had reduced by just **0.5MtCO2e**, from 170.2MtCO2e in 2009 to 169.7 MtCO2e in 2019. This means that there is no established long-term momentum to the process and practice of transport decarbonisation, available to be accelerated into the future. This same flatline over the last decade is repeated across the Northern region's

combined authorities (although the statistics are compiled on a different basis from the national ones and include only road and rail transport). Because transport emissions have essentially not reduced at all between 2009-19, the city regions too increased their share of the local carbon budget by up to +10%.[23]

Combined Authorities	transport emissions 2009 MtCO2e	transport emissions 2019 MtCO2e	Share of total regional carbon budget 2009>19
Greater Manchester	**4.9**	**4.75**	30.5% > 40%
Merseyside	**4.1**	**4.15**	25% > 34.5%
South Yorkshire	**2.7**	**2.8**	30% > 39%
West Yorkshire	**4.1**	**4.3**	30% > 39.5%
Tyne & Wear	**1.95**	**1.8**	29.5% > 38%

For comparison, a more rural county such as Lancashire exhibits the same trend: transport emissions in 2009 were 2.7MtCO2e and 2.65MtCO2e in 2019, with their share of the local carbon budget rising from 30.5% to 36%.[24]

In order to make up for lost ground - no transport emissions reduction below baseline at all in the entire first half of the 1990-2050 NZ period - academics have calculated that transport decarbonisation needs to proceed at -4% every year from now on, and yet so far has only managed 4.6% in total since 1990.[25] If this situation continues, then transport's proportion of the UK carbon budget must inevitably increase even higher, raising the prospect that the UK's own Net Zero pathway might be destabilised.[26]

Why has transport decarbonisation proved so difficult? It's true that it will require millions of individual behavioural changes, but it's argued in this analysis report that the principal reason must be that the two principal Department for Transport (DfT) policy stances - for road travel, and aviation - have chosen to prioritise expansion in demand and capacity regardless of their emissions consequences - *see Questions 6-22 (roads) & 23-40 (aviation).* At the same time, and again as a matter of policy, the public transport alternatives have been made more expensive[27], with (at least for the bus network) a collapse in the volume of bus services, urban and rural (outside London) of around 50% since 2008.[28] Qs1 and 2 on their own establish the context against which the effectiveness of the proposals in July 2021's Transport Decarbonisation Plan have to be judged.[29] So what have these three decades of delay done to the scale and rate of future pathway reduction that transport policy will have to achieve, but now in just **half the time**?

Q3 What is the future transport emissions pathway that a Labour government would have to deliver, up to 2030?

2030 is the critical milestone because this is the year when the UK has to meet its legally binding 'Nationally Determined Contribution' (NDC) towards meeting the UN's Paris Agreement target. It requires a **-68% reduction** in UK emissions by 2030 - to **303/309MtCO2e** - and then by -**77% by 2035**. Set by the Conservative government in 2020, this target has now been accepted by the new Labour government. It excludes IAS, which nonetheless must still be reduced).[30]

In December 2020 the Climate Change Committee established an effective pathway for annual total transport emissions (TTE) that requires a reduction from **167.2MtCO2e** in 2019 to **118MtCO2e** by 2030: a reduction of **49.2 MtCO2e**. In October 2021, and in response, the government Net Zero

Strategy (NZS) adopted a slightly higher annual TTE target for 2030 of 121.5MtCO2e.[31] The NZS dataset allows us to attach precise tonnage numbers (assuming central values) to the government's proposed TTE transport decarbonisation pathway. This was not possible with the picture of the pathway in July 2021's Transport Decarbonisation Plan, the lines of which were too 'fuzzy' and without a corroborating dataset.[32]

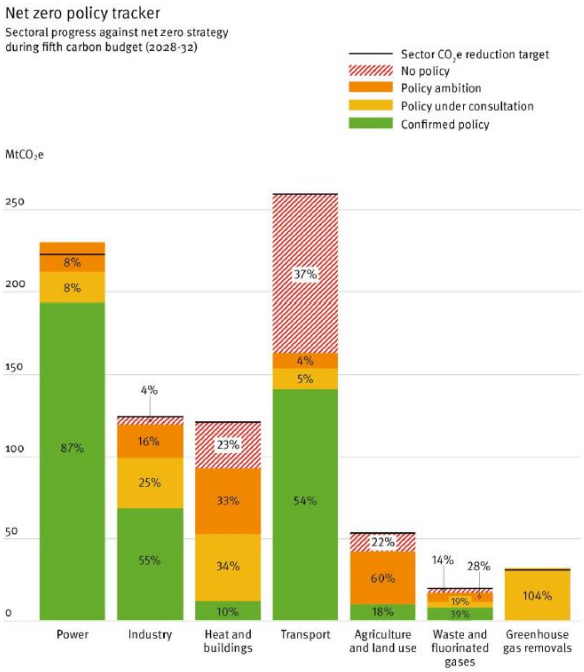
The implications of these numbers are twofold. On the one hand: will the existing transport and decarbonisation policy frameworks be capable of actually delivering such a tonnage reduction, in this short amount of time and from a standing start? But on the other, even if that were to be achieved, by the end of this decade and with now two thirds of the NZ period 1990-2050 having elapsed, total transport emissions will have reduced by just **-22.5%** below the CCA 1990 baseline level of 152.2 MtCO2e. In other words, 75+% of the reduction to Net Zero will remain to be accomplished. With other emissions sectors continuing to reduce towards NZ, the total transport emissions share of the UK carbon budget was projected by CCC in 2020 to increase to **35%** in 2030.[33]

However the 2030 target for transport emissions reduction set by both the CCC and government is an aggregate of two quite different emissions pathways: requiring major reductions in surface transport emissions led by the transition to electric vehicles (EVs) as a result of a phase-out of internal combustion engines (ICE) cars from 2030[34], which had been accepted as government policy in November 2020; but almost no reductions whatsoever in aviation emissions . The government Jet Zero Strategy promotes a fall in aviation emissions of just 1MtCO2e between 2023 and 2030 after the rebound from Covid.[35]

Q4 Transport is the emissions sector with the largest 'policy gap'

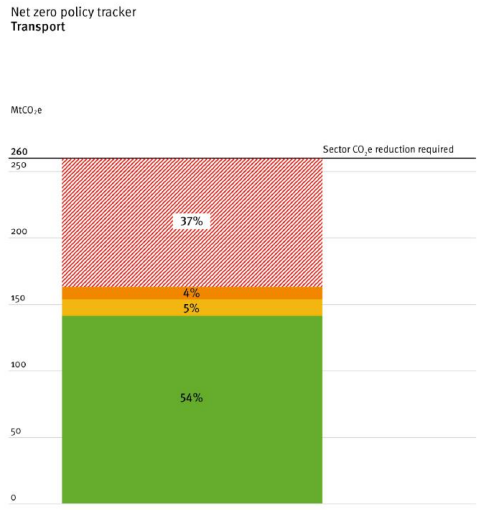
Both the Climate Change Committee and the think tank Green Alliance have concluded that transport is the emissions sector with the largest 'policy gap': where there are insufficient policies firmly in place to deliver with certainty the quantity of emissions reductions required. The CCC 2023 Progress report to Parliament, published in June of that year, has made nuanced assessments about the lack of progress over the previous year, and provided risk assessments about future policy delivery, relating to surface transport[36], aviation[37] and shipping.[38]

Charts from the Green Alliance *Net Zero Policy Tracker March 2024 Update* visualise policy delivery against the government's Net Zero Strategy (NZS) across the period of the 5th Carbon Budget (CB5) 2028-32.[39] It can be seen that transport (the central bar) is by far the largest emissions segment with various categories of 'policy gap' - all the shading colours except green. For transport this amounts to a 'policy gap' of around 120MtCO2e over the CB5 period 2028-32, which this or the next government needs to close by proposing, then consulting on, then adopting and finally implementing firm policy.



Source: Green Alliance Net Zero Policy Tracker March 2024

Secondly, for transport specifically, the Green Alliance Policy Tracker shows that 54% of policies required to achieve emissions reductions of 260MtCO2e have been 'confirmed' (green) - as a result of the combined and contrary effects of the September 2023 decisions to 'delay ICE phase-out to 2035' more than balanced by the Zero Emissions Vehicle (ZEV) mandate introduced from 2024[40] - with the remainder 46% being variously under consultation (5%-yellow), only 'ambitions' (4%-orange) or with 'no proposed policy' at all (37%-pink). The latter proportion has increased from 26% in the June 2023 edition, and now **70% of all UK emissions not yet targeted by adopted government policy are in the transport sector**.[41] Furthermore these numbers underrepresent the transport policy shortfall because as Green Alliance comments: 'expected emissions reductions from aviation over 2028-32 are small [only because] very few savings are expected from aviation in the near term'.



In December 2023 Friends of the Earth undertook a similar 'policy gap' assessment, just relating to surface transport, and concluded that the percentage of government plans that are credible (or just have some risks) deteriorated from 87% in June 2022 to 62% in October 2023.[42]

These charts reveal what happens if a government department over the long term doesn't place acting on the decarbonisation pathway as its principal policy driver. Rather than establishing early momentum behind a policy trajectory strongly compliant with CCC recommendations, the DfT has instead chosen to delay CCC compliance and, as the clock runs down, opts for reduction scenarios which over time are revealed to be insufficient. But, as well as increasing the erosion of the cumulative UK carbon budget incurring those delays consequently increases delivery risk, which will be a persistent theme throughout this report. This opens government policy up to the prospect that it could be the subject of legal challenge [43] As only recently disclosed, the DfT and supervising decarbonisation department BEIS (Business, Energy & and Industrial Strategy, now renamed Energy Security & Net Zero ESNZ) - as they prepared in November 2022 to revise the original Net Zero Strategy as a result of the first of the successful Friends of the Earth legal challenges (in partnership with Client Earth and the Good Law Project) - already acknowledged the scale of these emissions reductions shortfalls - in private. However the fact that the incoming new BEIS Secretary of State happened to be the previous DfT Secretary of State (Grant Shapps) must have limited the department's ability to face up to this question: how to think afresh about confronting this transport decarbonisation 'delivery risk'? *see Q50*

Q5 If actual transport emissions between 2025-30 turn out to be higher than they should be, are there 'levers' available to pull which will get the UK back on track?

Understanding what might be the answer to this question becomes a scenario that policy makers have to prepare for in advance. If the transport decarbonisation pathway to 2030 quantified in Q3 above is revealed or projected to be progressively off course in the second half of the 2020s, would the government be able to intervene in time to ensure a course correction?

This is a crucial issue, weaving together so many factors: the sheer size of the transport emissions tonnage; that the roads and aviation policy drivers are heading in quite the wrong direction *see Qs 6-22 (roads) and 23-40 (aviation)* ; that more than half the NZ 1990-2050 period has elapsed, with no reductions achieved at all; the complexities of coordinating implementation across boundaries *Qs44-48*; and increasing delivery risks Qs49-54. It's an issue which is applicable to both the roads and aviation policy frameworks. For roads, and as we'll see *Q14*, the government has for example refused to even consider how road user charging might be one such effective lever. For aviation *Q37* describes how a concealed purpose of the Jet Zero Strategy appears to be the removal of all regulatory levers available to constrain passenger demand, airport capacity and carbon emissions *Q38*.. The consequences would be severe. Chatham House in a new report analysing the aviation components of the problem state: 'Given that demand-side emission reductions can be implemented quickly, with little lead time, demand-side responses are likely to be the only fast-acting policy measure left at our collective disposal to avoid disastrous climate impacts'.[44]

The problem of wrestling with a recalcitrant pathway is made still more difficult because there can be a lag of at least 18 months before the success (or not) of past decarbonisation actions becomes visible in the data, whilst at the same time policy and decision-makers must ensure that the pipeline of policy changes necessary to secure future carbon reductions is being continually rolled forward. Since the Covid lockdowns resulted in a substantial downturn in transport patronage[45] a discontinuity has been introduced into the emissions pathways, past and projected, making it still more difficult to steer the pathway's implementation towards its future target. How adequate are the DfT's proposals to monitor the transport decarbonisation pathway and if necessary make a course correction? - *Qs39 & 49.* An additional hindrance has been caused by the refusal of DfT to make public their detailed TDP implementation programmes and assumptions, which would allow

external stakeholders, including opposition parties to independently scrutinise the true risks of policy delivery.[46].

If it turns out **not** to be possible to take compensatory actions to claw back to the pathway, what happens to the UK carbon budget as a whole? The transport emissions sector is so large that this failure would mean that it would consume an ever larger share of the UKCB than the projected 35% in 2030 – *Q3*.

Climate Risk Has increased because the historic transport emissions pathway, driven by roads and aviation policy, failed to reduce below the 1990 baseline.
Policy Frameworks The TDP has not provided strong regulatory and monitoring mechanisms.
Implications for Labour The next government will face an accumulated and embedded mountain of carbon emissions and a continually reducing timescale to reduce this. Has Labour scoped out how it will be able to implement an accelerated decarbonisation pathway?

Qs1-5 have therefore begun by establishing the context within which the adequacy of the proposals in the 2021 Transport Decarbonisation Plan - intended to be a compendium of all the DfT's solutions to the rising emissions pathway it has presided over - can be judged. The next task is to review the detailed policy frameworks for roads, and aviation, to assess whether or not they have put in place the policy frameworks essential to accelerate transport decarbonisation.

Roads Policy and infrastructure investment: the 'Roads Programme'

Q6 In (pre-Covid) 2019 road transport emissions had not reduced at all from the 1990 baseline set by the Climate Change Act

Road transport emissions in 1990 were **110.8 MtCO2e** and in 2019 **111.4MtCO2e**.[47] Thus in the first half of the Net Zero period between 1990-2050 there has been **no road transport decarbonisation whatsoever**, as CCC has demonstrated[48]. By 2023 post Covid road emissions were approx.100MtCO2e, just 10% below the 1990 baseline as there has been both a rebound from their temporary reduction as a result of the Covid lockdowns and as the transition to EVs has begun to take hold.[49]

Q7 What is the proposed decarbonisation pathway for road transport by the 2030 milestone and to the Net Zero 2050 end year?

This can't be stated precisely because a specific emissions pathway for road transport has not been identified by either government or CCC but with some reasonable adjustments to the numbers in the Net Zero Strategy dataset, it can be calculated that road emissions from around 100MtCO2e in 2023 to **66MtCO2e in 2030** (so 41% below 1990) and just **31.5MtCO2e in 2035** (72% below 1990). Remarkably they have dropped to single figures by the 2040s.[50] This pathway at last offers the prospect of radical reductions in carbon emissions from road transport, to be delivered via the transition to electric vehicles (EVs), now supported in policy by a phase-out date for the sale of new ICE (internal combustion engine) vehicles and by the zero emissions vehicle (ZEV) annually increasing the percentage of EVs that must be sold in the UK market up to 2030.[51]

As it happens, the 'transition to EVs' policy change was <u>not</u> enacted by the TDP itself but originated with the DfT *Road to Zero* document approved by Secretary of State Chris Grayling in July 2018.[52] In November 2020, in the run-up to COP26, the government agreed to move forward the prospective

phase-out date from 2035 to 2030.[53] That decision was then reversed by the Conservative government in September 2023 but Labour immediately pledged to restore the 2030 phase-out, which was indeed then included in their manifesto.[54] The objective for the *Road to Zero's* change of direction was primarily not to achieve a decarbonisation pathway (which indeed is not quantified or included in the document) but rather as part of a new green industrial strategy in order 'to put the UK at the forefront of the design and manufacturing of zero emission vehicles'. This illustrates a continuity with the current approach of Labour which on 9th October 2023 announced an automotive sector deal to support the EV transition.[55] It has recently become even clearer that not pressing ahead with the EV transition, with all its associated supply chains including battery gigafactories, represents maybe an existential threat to the UK car industry, but is also a key component of a proactive green industrial strategy.[56]

Q8 What is the consequence of electric vehicle transition for the cost of motoring and forecast levels of road traffic?

The Surface Transport Sector Summary report prepared by the Climate Change Committee as part of its 6th Carbon Budget proposals (December 2020) provided an exhaustive analysis of the issues associated with, and impacts of, the transition to EVs, not just for cars but HGVs and bus as well. In terms of the distribution of costs and benefits of EV adoption it assessed that annual investment in vehicles and charging infrastructure could rise to £12b by 2035, but that because EVs are much more efficient than conventional vehicles, that cost 'will be offset by lower operational expenditure from around 2030, with annual operating cost savings of around £20 billion in 2035.[57] In plain English: the cost per mile of driving electric cars will continue to reduce, with those benefits accruing to their owners.

It must follow that, with the price of car travel falling, the volume of road traffic will tend to increase.[58] Combining this with the CCC understanding that the remainder proportion of new purchased new ICE vehicles might still be considerable approaching 2030 - in fact around just one quarter of the total car fleet, resulting in the continuing generation of carbon emissions[59] - led to their recommended approach that also required a demand management component to transport policy. This would have health and social co-benefits whilst at the same time reducing the quantity of capital investment needed for this huge transition.[60] The implication of this analysis therefore leads to Q9.

Q9 Is there a need to constrain road travel demand in order to keep the transport decarbonisation pathway on track?

The Climate Change Committee's 6th carbon budget report confined itself to a thoughtful consideration of the policy issues around potentially constraining the level of road demand, and increasing the use of public & active transport.[61] But by the time of their 2023 Progress report CCC had run out of patience with a DfT lack of response. They noted that 'the government has made no progress on our recommendations on clarifying the role for car demand reduction and ensuring that key enablers (roadbuilding decisions and taxation) are aligned to delivering this'. They asserted that 'without policy action to embed a reduction in the need to travel by car or grow the availability and attractiveness of alternative lower carbon modes, traffic is likely to increase beyond the CCC's pathway'. Consequently they requested the government to conduct a systematic review of current and future roadbuilding projects because of the potential to 'lock in unsustainable levels of traffic growth'.[62] What happened next?

Q10 The government's Net Zero Strategy committed to a 40% reduction in surface transport emissions by 2030, but now that ambition has been substantially reduced

In October 2021 the government's Net Zero Strategy (NZS) had said that surface transport emissions should be reduced from 122MtCO2e in pre-Covid 2019 to 74MtCO2e (central value) by 2030, a 40% drop.[63] In post-Covid 2022 the Climate Change Committee were able to report that emissions had in fact fallen to 105MtCO2e[64] - so 8MtCO2e below where the NZS modelled they should be in that year - with road travel demand having apparently reached a new steady state around 5% below pre-pandemic levels.[65] But notwithstanding this 'bonus' fall in the roads emissions pathway, in March 2023 the government's Carbon Budget Delivery Plan (the revised NZS) now included smaller emissions reductions for the UK carbon budget as a whole, which CCC attributed predominantly to future shortfalls in the surface transport pathway.[66]

The cause was twofold: 'a more realistic estimate of emissions from plug-in hybrid cars' - that is, in the real world these vehicles performed worse than had been modelled; and 'a decision to remove most of the estimated emissions savings from reducing car-kilometres, that had been included in the NZS pathway' - that is, the DfT had failed to identify policies to constrain road travel demand.[67] With the clock running down towards by 2030 and 2050, CCC concluded that this problem cannot be overlooked: 'The reduction in quantified ambition in surface transport results in an abatement shortfall which will need to be made up to meet legislated carbon budgets.'[68]

That 'abatement shortfall' has been examined closely Dr Andrew Boswell of Climate Emergency Planning & Policy in order to distinguish its two component parts. He has put a number to the reduction in decarbonisation tonnage just as a result of changes to the baseline projections between the 2021 TDP and the Carbon Budget Delivery Plan (so not including changes to policies, and delivery risks to those policies!): '… the March 2023 CBDP reported a decrease in previously modelled emissions reductions from surface transport amounting cumulatively to some **130MtC02e** across carbon budgets 4-6'.[69]

Prof Greg Marsden of Leeds University Institute of Transport Studies, who has determinedly been challenging the lack of DfT transparency on changes to travel demand, assessed changes both to the pathway baseline and future policy ambitions. His analysis is that: 'The CBDP pathway for domestic transport is a cumulative total of around **411MtCO2e** above *[i.e a deterioration from]* the most ambitious pathway in the Transport Decarbonisation Plan. This corresponds to a closing off of around 72% of the ambitions set out in the TDP, a document produced less than two years previously.' He concludes that 'Less than 18 months on from the publication of the Transport Decarbonisation Plan **much of the potential ambition on travel demand reduction has been set aside**.'[70] This is a crucial finding, prompting the next question.

Q11 Seeing that the transition to EVs *and* constraint on car demand are both necessary, how will road transport decarbonisation therefore be achieved?

This question arises precisely because of the anticipated shortfall in the surface transport decarbonisation pathway; the risks of that happening therefore have to be mitigated by policy interventions. But that shortfall is now already built into what might be a possible rate of EV transition by 2030. The government expects only 55-60% of new cars to be battery electric by 2030, meaning that around 75% of cars on the road in 2030 will still be ICE powered.[71] It's therefore been calculated by consultancy Transport for Quality of Life (TQL) that even with a progressive transition to EVs 'this would only reduce car tailpipe CO2 emissions by at best about 25-30%'.[72]

And what if that transition were to falter? Whilst CCC 2024 Progress noted that there was a small decrease in surface transport emissions despite an increase in traffic, as a result partly of the transition to EVs, the report also carefully qualified this finding: 'the rate of electric vehicle uptake [will need] to accelerate rapidly. …The annual reduction in surface transport emissions across the rest of the decade must be more than four times what we have seen in 2023.' CCC had proposed in its 6th Carbon Budget advice in 2020 that total car miles needed to fall by 9% by 2035 relative to the baseline, increasing to -17% by 2050; that van miles should be reduced by 3% by 2035 and HGV miles by 10%.[73] *Not going the extra mile* by Green Alliance assesses the possibility that the take-up of EVs across the 2020s might be slower than needed to achieve the CCC pathway and then quantifies how reductions of either 20% or 27% in road traffic (i.e mileage per car) would make up for slower EV sales.[74] There is generally a consensus amongst expert academics and analysts that a reduction in traffic of around 20% by 2030, in parallel with a strong EV transition, will help move towards a surface transport decarbonisation pathway consistent with the CCC carbon budget.

Such targets have already been established by the Scottish government (for car mileage; growth in HGVs and LGVs needs to be addressed too).[75] In 2021 TQL had recommended that the UK Government should set a similar binding traffic reduction target for England but unfortunately CCC, despite noting in 2023 Progress that 'no progress on clarifying the role for car demand reduction' has itself been inconsistent in making recommendations for Scotland and Wales on car kilometre reduction but not for England.[76] Will Labour now propose to do that by taking forward its proposal to set modal share targets. If it did this what would be the consequences for road building?

Q12 The DfT continues to promote an expansion in future road traffic levels

This question begins a sequence of Questions considering what is commonly known as the 'Roads Programme'. Its process starts with periodic reviews of national road traffic projections. Those, with a policy judgement about the extent that they should be met, are then then fed into the development of the road investment strategy (RIS), which once adopted allows individual new infrastructure schemes to be brought forward within the ambit of the National Networks national policy statement (NN NPS). Once a scheme has been approved by the Secretary of State for Transport (in England) it is then implemented by the National Highways agency. Separately, road schemes are also developed by the devolved administrations/combined authorities/counties/local councils.

The DfT 2022 National Road Traffic Projections (which inform the national transport model) set out a range of scenarios, within which the Core Scenario forecasts **a 22% increase in traffic** between 2025 and 2060 based on the main drivers of road traffic demand including population, economic growth, employment, households, fuel prices and fuel efficiency. The upper scenario with a 54% increase allows for the widespread adoption of autonomous vehicles, leading to increased trip making; the lower scenario with an 8% uplift assumes more flexible working, online shopping and reduced rates of driving license holding.

A criticism of the DfT projections is that they did not test for a scenario which is compatible with the required levels of emissions reduction.[77] TQL evidence to Parliament's Transport Committee, as part of its inquiry into strategic road investment, found that for all road traffic projections scenarios, the modelled reduction in carbon emissions from traffic is less than the required reduction in surface transport emissions assumed in the CCC 6th Carbon Budget, so that consequently none of them are compliant with CCC's carbon reductions for surface transport, or the DfT's own Transport Decarbonisation Plan.[78]

In its published report from the inquiry the Transport Committee stated that 'the Government's determination to accommodate demand for new roads through investment without also considering steps to manage that demand is a risky strategy.' They recommended that the government should model and report on scenarios where traffic is either maintained at existing levels, or reduced, in order to assess the potential contribution of demand management to reaching net zero.[79]

Q13 The DfT downplays or dismisses the established connection between new road building and additional traffic generation

There will be a reasonable familiarity with the argument that the provision of additional new road capacity provides only a short lived amelioration in journey times because it then encourages more traffic to take advantage of the reduction in congestion that occurs when that capacity is first available. This phenomenon is called induced traffic. In March 2023 DfT asserted that 'evidence that development on the network leads to induced demand is limited. A recent literature review suggested that the scale of any induced demand is likely to vary depending on circumstances.'[80] However an expert dissection of this claim instead concluded: '… a serious look at five main bodies of evidence leaves little room for doubt about the importance of induced traffic. … They all show that induced traffic was, and remains, a significant issue in the appraisal of road capacity increases.'[81]

Q14 The government has so far refused to examine even the possibility of road pricing as a tool to reduce congestion and emissions

Road pricing was first suggested by the Climate Change Committee in 2010 as a possible mechanism to achieve significant emissions reduction and to manage congestion, rather by providing new infrastructure capacity.[82] In February 2022 Parliament's Transport committee published the results of their own investigation into road pricing which suggested that it might be a necessary response to the progressive erosion of the £35bn derived (in 2020-21) from motoring taxation as a result of the transition to EVs; this represents 4% of all tax receipts.[83] At that time neither fuel duty (producing £28bn tax revenue) nor vehicle excise duty (£7bn) were levied on electric vehicles. The report pointed out that in addition to this very considerable contribution to the funding of essential public services, motoring taxation plays a key role in managing congestion by regulating the demand to use public roads. It warned that, if the Government failed to radically reform motoring taxation, the UK faces a congested future unless drivers of EVs - also with their lower operating costs - did not pay to maintain and use the roads they drive on. Subsequently the government decided to extend vehicle excise duty to EVs, starting from April 2025, but this still leaves 80% of motoring tax revenue at risk of continued erosion by the EV transition.

The eventual response from the Chancellor of Exchequer to the Transport Committee's road pricing report was to declare baldly: 'The government does not currently have plans to consider road pricing.'[84] Not only does this delay an inevitable and difficult public debate about motoring taxation, it's also a missed opportunity to assess how it might be possible to integrate the variety of local schemes being applied in some cities to deal with traffic congestion or air pollution (such as the Ultra-Low Emissions Zone (ULEZ) scheme recently extended by the Mayor of London to cover Outer London) with positive results.[85] That being the response from a Conservative government, what would a next Labour government do, particularly in the context now of the Chancellor discovering an apparent £22bn public expenditure 'blackhole', and a need to generate additional taxation funding for public services and to protect future revenues? - *see Q20 page 27*.

Q15 Will Labour be able to deploy vehicle charges and taxation measures in support of transport decarbonisation?

Fuel duty is just one of a set of fiscal levers, at national and local levels, that contribute to the dynamic adjustment of the price of travel by competing modes. Parking and zonal charges, aimed at reducing congestion and air pollution are others. It's already been noted *Q3* that bus passengers had been the persistent losers as their fares soared way above consumer price inflation, whilst total costs for car drivers showed barely any increases (even some reductions) compared to inflation until the end of 2021.[86] Discussion around fuel duty as the more important component of motoring taxation notes that its continuing erosion is failing all three of its important purposes: maintaining Treasury revenue, reducing congestion and incentivising decarbonisation.[87] The Social Market Foundation has also pointed out that fuel duty is regressive in impact, with its erosion thereby helping wealthy motorists more than poorer ones.[88]

Motoring taxation and charges, however designed, are ways of integrating environmental/social policy objectives with freedom of choice. The Transport & Environment organisation has found that the UK is 'failing to properly tax oversized, highly polluting cars compared to other European Countries', with new higher polluting cars being taxed at a significantly lower rate at the point of purchase in the UK compared to EU countries with similar tax systems. As a consequence, the UK has a much higher proportion of new highly polluting cars and the Government is missing out on an equitable and easily actionable source of revenue.[89]

Bringing all these arguments together the Resolution foundation (then led by Torsten Bell, now MP for Cardiff West and minister in the Cabinet office) researched an interlocking suite of policies to reform motoring taxation - replacing Fuel Duty with an electric per-mile equivalent; introducing local congestion charges to keep traffic moving; protecting Vehicle Excise Duty revenues and ensuring their fairness by changing the upfront component such that it is based on vehicle weight; and harmonising VAT rates paid by all electric car drivers - which he is in a position now to 4 the government. Should objections be raised inside government, he could quote the new motto of the DfT established by Transport Secretary Louise Haigh: 'Move fast and fix things'![90]

In mid 2023 such critiques were brought into sharp relief, not just by the controversy surrounding the Mayor of London's proposed - and ultimately adopted - extension of the Ultra Low Emissions Zone (ULEZ) to outer London boroughs. This pitted environmental/health objectives against cost of living ones, but also against the wider approach towards overall levels of taxation that Labour is espousing in advance of the General Election. Having had a previously proposed commitment in principle to clean air zones removed from the Labour national policy forum document[91] leader Sir Keir Starmer then enunciated a wider promise: 'We're not increasing tax across the board. … We will do nothing to increase the burden on working people, whether it comes to tax or anything else'.[92] In her October 2023 party conference speech Shadow Chancellor Rachel Reeves used similar language: 'I didn't come into politics to raise taxes on working people. Indeed, I want them to be lower.' But she also talked about the inequity of 'allowing the wealthiest to avoid taxes' - which, as we shall see, certainly also applies to frequent flyers - whilst indicating clearly that 'online tech giants' and 'energy giants' would have to 'pay their fair share'.[93]

However, in an election year, there are additional traps that the main political parties set for each other. In this case: how does this general pledge about taxation apply specifically to the level of future fuel duty (FD) to be set by the next government? This has been frozen by the Conservative

government since 2012 but the Office for Budget Responsibility (OBR), in its modelling to future government income, is still assuming that prescribed future FD increases will have to take place.[94] Will Labour comply with the OBR assumption, consequently applying an emissions constraint at the margin? On the other hand, in the pre-election campaign might this requirement be abandoned?

So could these broad edicts by the Labour leadership about levels of taxation have the effect of restricting the use of a crucial fiscal intervention in the transport decarbonisation toolbox? At the moment this question is left unanswered. We examine the same question as it applies to aviation at *Q34*.

Q16 What are the carbon impacts of the Roads Programme?

These are in two categories, from the construction and then the operation of a new or expanded road infrastructure. At the moment the government claims that new roads will not significantly increase emissions, and on that basis argue that the continued provision of new roads schemes is not incompatible with transport decarbonisation.[95] Can this claim be substantiated?

In 2020 Transport for Quality of Life undertook an analysis of the potential carbon impact of the second road investment strategy (RIS2) implementation plan 2020-25, in the absence of any published government figures on this issue. They estimated that total cumulative additional emissions between 2020 and 2032 as a result of RIS2 may be about 20MtCO2. This includes an allowance for improved vehicle efficiency over time, as the proportion of electric vehicles increases. They calculated that the **increase in CO2 from RIS2 will negate 80% of potential carbon savings from electric vehicles on the Strategic Road Network between 2020 and 2032**. Overall they concluded that RIS2 is not consistent with UK carbon targets.[96]

The campaigning organisation Transport Action Network (TAN) used National Highways own data (obtained by Freedom of information inquiries and Environmental Statements for individual schemes) to assess the carbon impact of RIS2 schemes. Having obtained NH data for the emissions generated by projected additional traffic for 46 schemes TAN has calculated that this will lead to almost 33Mt of extra CO2 emissions. They have also examined the construction emissions data for 30 of the 50 RIS2 schemes, which shows construction would add just under 6Mt.[97]

Q17 The roads policy framework actually prevents the carbon impact of new road schemes being assessed properly and challenged as they're being developed

The 2008 Planning Act created a framework intended to speed up the process of approving major new infrastructure projects, including roads and airports. A key component of this process is the preparation and adoption by Parliament of 'national policy statements' (NPSs) which determine the objectives and required characteristics of new projects in a particular sector in advance of individual planning applications, and also how these schemes should be assessed and approved. Once an NPS has been adopted by Parliament, its stipulations cannot be challenged at any subsequent stage of the planning and consent process. Although the Planning Act was given Royal assent on the same day as the Climate Change Act (26th November 2008) the irony is that this policy framework, as it applies to proposed transport infrastructure schemes, has played a significant part in the undermining of essential decarbonisation and will continue to do so unless revised.

The National Networks NPS relates to both road and rail networks (although in practice mostly to the former) was prepared in 2014, so before the 2019 tightening to Net Zero of the Climate Change Act. A revision has been prepared and was proceeding through the process to be adopted (May 2024),

requiring affirmative adoption in Parliament.[98] However the draft revision has not yet been formally adopted and Transport Action Network are speculating that this may be related to the 3rd May 2024 judgement in the FOE *et all* Net Zero II case which may have made the 2024 draft legally vulnerable, and the 'presumption in favour of roadbuilding' of the existing 2014 NPS potentially suspended.[99] The revision of the NPS is just one element of the government's wider approach to speeding up infrastructure delivery, including the adoption of a consistent wording across the range of national policy statements stipulating how carbon emissions arising from NPS applications should be treated.[100] Both the old and new NPS versions apply *de minimis* principles[101] to effectively prevent consideration of the impact of carbon emissions from the construction and operation of an individual proposed road scheme from being properly costed or constrained in its assessment and approval process. It does this by requiring that the carbon impact of a single new road scheme should only be compared to the size of the entire UK carbon budget. 'It is very unlikely that the impact of a road project will, in isolation, affect the ability of Government to meet its carbon reduction plan targets', said the 2014 NPS and therefore 'any increase in carbon emissions is not a reason to refuse development consent.'[102]

The revised 2024 draft NPS text substitutes circumlocution for this unambiguous language but the intention and effect remain the same.[103] The Transport Committee report from its inquiry into the revised NPS contained a chapter specifically examining the tension between the proposed NPS approach and Net Zero targets, and the potential for this to result in legal challenges, as has been increasingly occurring. It referenced the CCC recommendation in 2023 Progress for the government to conduct a systematic review of current and future roadbuilding projects and requested a response from the DfT to the CCC recommendation.[104] When that came it defended the existing NPS approach and explicitly rejected the CCC recommendation. The message was clear: the policy response for increased emissions arising from the roads programme will have to occur within other government departments, and across the economy, but <u>not</u> in the DfT policy area.[105]

Therefore assessment and consent process for an individual new road scheme cannot in practice propose its rejection on carbon impact grounds. The DfT position, embedded within the National Networks NPS, is that since this *de minimis* principle applies not just to a single new road but also to adjacent road networks it consequently cumulatively encompasses the continued incremental expansion of the entire £24bn roads programme.[106] Campaigning organisations like Transport Action Network and Green Alliance have provided briefings advising that the 2024 revised draft NPS should not be supported.[107] The consequence of continuing with whichever NPS version (as we've just seen *Q16*) is that millions of tons of future carbon emissions are being locked in and a huge amount of transport capital investment misallocated to unsustainable projects.

The implication must be that a Labour government, recognising the imperative of tackling this volume of carbon emissions, will need to revise the National Networks NPS for a second time so that future roads policy and the investment programme can be made compliant with Net Zero. In spring 2024 Labour appointed two specialist commissions to examine infrastructure issues: the Major Capital Projects review led by Darren Jones, shadow Chief Secretary to the Treasury, to assess 'ways Britain can reduce costs and speed up delivery of major infrastructure projects'; and a separate Rail and Urban Transport Review to examine how a future government could accelerate connectivity within and between the UK's key urban areas - with Juergen Maier CBE, former Siemens CEO and Vice Chair of the Northern Powerhouse Partnership being members of both. The ETOs made consultation contributions to both of these processes focused on decarbonisation.[108] For its part the Conservative government has appointed an independent review to look into speeding up the delivery of major infrastructure projects. Expected to report this summer it will assess the case for

improving the process for legal challenges of nationally significant infrastructure projects in a way that would reduce any identified impacts of what its chair, newly ennobled Lord Banner KC, describes as 'inappropriate legal challenges'.[109]

Q18 What is Labour's proposed approach to new road building, and what is the rationale for infrastructure investment?

NB *This section mostly reflects the state of knowledge as of May 2023 but some revisions for the period afterwards have been made.*

At the moment **this is not known**. There was no mention of the issue in the Labour Party manifestoes for 2015, and then 2019, and it's some time since the last Labour government which ended in May 2010. Its record then illustrates whether the practice of a future Labour government would necessarily differ from that of the current Conservative one. In 1997 Labour inherited a collapsed road building programme following the economic downturn across the 1990s[110] but by the middle of the 2000s decade 'roadbuilding as usual' had resumed to an extent but without the public flourishes of Margaret Thatcher's 'greatest roadbuilding programme since the Romans'.[111]

And Labour has already begun to clear a path which could potentially be used to accelerate road schemes. At the Labour conference on Monday 9th October 2023, Shadow Chancellor Rachel Reeves did announce that all the national policy statements *see the previous Q17* would be 'updated': 'A once in a generation set of reforms, to accelerate the building of critical infrastructure for energy, transport and housing', to include 'Speeding up the planning for critically important infrastructure by updating all national policy statements – which set out what types of projects the country needs – within the first six months of a Labour government'.[112]

However the purpose of this Labour NPS revision has <u>not</u> been specified so as to make them compliant with a Net Zero emissions pathway, but rather is in pursuit of a quite different objective – 'getting Britain building again, [something] critical for economic growth' - which, according to Labour leader Sir Keir Starmer in his speech on 10th October, is however a prospect 'hidden by our restrictive planning system. Conference, we must bulldoze through it.' This constitutes 'a blockage that stops this country building <u>roads</u>, grid connections, laboratories, <u>train lines</u>, warehouses, windfarms, power stations' *emphasis added*.[113]

That message has been continued in three further speeches made by Sir Keir. On 3rd November 2023, to the NE Chamber of Commerce, he specifically mentioned two large roads schemes not yet approved - A1 widening and the Lower Thames Crossing (LTC) - and drew this general conclusion: 'It's a story you see right across Britain. Infrastructure projects – some with billions already committed. Businesses planning around them. … But the projects and investment get stuck. Blocked by objections, consultations, legal challenges, ballooning costs. Delays, delays, delays.' The failure so far to proceed with the LTC scheme was again referred to in his response to the King's Speech debate on 7th November. Then a news article in February 2024 recorded his sympathies with frustrations about delays to a number of projects along the south coast A27 route: 'I've driven on that road. … We would bring [on] board a proper strategy and make sure what we say will happen, gets done and on time.'[114]

In his 4th December speech at the Resolution Foundation Sir Keir connected these references to specific road schemes to a wider view about fundamental Labour priorities and what he called 'modern supply-side theory'. He affirmed what would be 'the defining purpose of the next Labour government, the mission that stands above all others'. It wasn't tackling the existential problem of

climate change (though that got a name check) but rather an economic one: 'raising Britain's productivity growth'. He declared himself a devotee of 'modern supply-side theory' because 'it recognises the unchanging fundamental – that growth comes from supply-side expansion, for which we now need a new tool-kit'.[115]

Until recently there had been no policy statements by the Shadow Roads Minister Bill Esterson MP for Sefton Central (or the shadow Secretary of State for Transport, Louise Haigh, MP for Sheffield Heeley). Then, in his speech in the parliamentary NPS adoption debate on 26th March 2024 Bill Esterson actually acknowledged many of the issues identified in this report, including the carbon impacts of more road building and the need for the NPS to be Net Zero compatible. He specifically refers to the problematic wordings cited in endnote 103 of this report.[116] But he also restated the 'carbon contradiction' within the Labour infrastructure argument without acknowledging let alone resolving it: 'there is still a lot of catching up to do when it comes to our climate change commitments *and* to ensuring that we deliver major infrastructure projects on time and to budget'. Labour did not oppose the adoption of the NPS and the shadow minister noted that the review of all NPSs announced by the shadow chancellor would 'ensure they help, not hinder, the construction of important transport infrastructure projects.'[117] In other pronouncements the shadow roads minister has demonstrated his understanding that the cost of EV motoring will continue to reduce indefinitely - in which case traffic volumes will increase - and that the contribution of Fuel Duty to Treasury revenue is consequently being eroded.[118]

The initial draft of this report contained a positive description of the independent roads review commissioned by the Welsh government in 2021 as a positive case study for Labour about how to rethink conventional approaches to transport infrastructure investment that typically focuses on road building. Reporting in February 2023 it recommended a number of criteria to filter potential projects including that 'the scheme should not increase road capacity for cars' or would 'shift trips to sustainable transport to reduce carbon emissions'.[119] In accepting the review's recommendations the Welsh government paused 40 out of 55 schemes.[120] That this decision created a target for a Conservative campaign was however partly fuelled by a lack of funding preventing the development of sustainable alternatives. At the moment it's not yet clear whether the newly appointed (March 2024) Welsh roads Minister Ken Skates MS, a long-time critic of the roads review who replaced the Minister Lee Waters MS championed it, has set the process and outcome of the roads review aside,[121] but this turn of events represents the reversion to a more conventional transport politics compared to that of London Mayor Sadiq Khan who stood his ground in defence of the ULEZ scheme and secured re-election with an increased vote share.

Of course there is already a substantial academic debate about whether there is a causal relationship between road infrastructure growth and economic growth; the comparative value of adding to the stock of road or alternatively public transport infrastructure & services; or between new infrastructure versus increasing the efficient use of existing infrastructure (via such as demand management mechanisms) in order to prevent the misallocation of scarce resources on unnecessary new capacity.[122]

Fortunately, Sir Keir's conventional wisdom about infrastructure investment was the subject of immediate critique in October 2023, by Prof Greg Marsden of Leeds Institute of Transport Studies, calling for a rethought approach so that 'we don't go back to the biggest roadbuilding programme since … the 1970s or whichever narrative you prefer. It won't work. ... We need to undermine the claim that somehow infrastructure expansion is the answer. This is something which infects all political parties, and I commend the Welsh government for their pragmatic approach to thinking

through when infrastructure expansion can be justified in a climate emergency.' Consequently 'infrastructure spending [should] rely on a rebalancing of funds which had previously been dedicated to road expansion and will instead be focused on road utilisation'.[123]

There is an abundance of literature around the agglomeration benefits to be obtained by making British cities (including those in the North of England) denser and reducing commuting times through road pricing and better public transport. This creates larger labour markets and improves matches between employers and workers in the services sector where the UK retains a comparative advantage internationally.[124] Labour will also need to fold in the findings of the October 2023 National Infrastructure Assessment (NIA) produced by the NI Commission, which is the nexus for future infrastructure provision, economic growth, regional inequality and decarbonisation. The NIA recommended prioritisation of improved public transport networks in four major regional cities (Birmingham, Bristol, Leeds and Manchester) in pursuit of increased productivity and agglomeration benefits, which strongly aligns with Labour priorities. It also stated that the 'Government's first priority for roads should be to maintain the existing network by investing adequately in maintenance & renewal, including to ensure proportionate resilience to climate change impacts.'[125]

The assessment within this Question has demonstrated that there is a possibility that history might repeat itself if the Labour approach to roadbuilding isn't based on very solid strategic foundations, intensely informed by expert carbon analysis. There are two issues here. Most worrying is the absence of a clearly stated formal requirement that Labour's intended revision of the NPSs in government **should also include 'compliance with Net Zero' as a fundamental prerequisite** - with all that that entails. Secondly, it's not just that road building has been included, alongside rail, in Sir Keir's list of essential infrastructure investments but rather the unquestioned assumption that future UK economic growth **requires more physical infrastructure rather than the application of demand management to the existing infrastructure** so as to increase its efficient use.

Q19 A huge programme of new roads schemes continues to be prepared without being constrained for its increased traffic and carbon emissions consequences

Programmes of new roads schemes are developed at both national level within the Road Investment Strategy covering the next decade, and local levels. RIS2 2020-25 is now being implemented and RIS3 2025-30 being prepared and is on schedule to be adopted by early 2025.[126] Together RIS2 & 3 are likely to amount to approximately £50bn, with new road building using up over 50% of the entire RIS2 budget. That huge slice of the government's capital budget would not be available for other priorities such as investments supporting Net Zero and increasing maintenance of the existing network, which is the priority for most motorists.

We've already seen (endnote 62) that the Climate Change Committee in its 2023 Progress report had requested the DfT to conduct a systematic review of current and future road-building projects so as to 'ensure that decisions do not lock in unsustainable levels of traffic growth, and to develop conditions that permit schemes to be taken forward only if they meaningfully support cost-effective delivery of Net Zero …' The government's response to the CCC recommendation was to reject it. At the same time (July 2023) Parliament's Transport Committee in its Strategic Road Investment report recommended that the government should make more money available for maintenance funds (both capital and revenue), and enable that by 'cancelling complex, costly enhancement projects', of which the Lower Thames Crossing must be the best example.[127]

The Transport Committee report says this emphasis on a continuing roads programme creates climate risk: 'Transport remains the biggest greenhouse gas contributor in the UK and the

Government's strategy for decarbonising transport by 2050 is reliant on a rapid switch to zero emissions vehicles. However, in all future scenarios modelled by the Department for Transport, traffic on the Strategic Road Network is forecast to increase, and there is a great risk that uptake of cleaner vehicles will not be fast enough to mitigate that increase. The Government's determination to accommodate demand for new roads through investment without also considering steps to manage that demand is a risky strategy.'[128]

Instead what happened in October 2023 is that the Conservative government went in the opposite direction. Precipitated by its sudden cancellation of the northern leg of HS2 to Manchester, capital investment was, according to Transport Action Network, 'taken from public transport and given to roads. Over one third of the HS2 budget is being redirected into road building'.[129]

Q20 Many new road schemes being developed have very poor value for money so really shouldn't proceed

For example, the largest scheme of all currently being developed by National Highways, the Lower Thames Crossing - and also repeatedly cited by Sir Keir Starmer - with a cost approaching £10bn has an adjusted benefit cost ratio (BCR) of just 1.22 , which 'wider economic impacts' and 'journey time reliability'. This is identified as 'low', and that number itself is contested. The A66 Northern Trans-Pennine scheme, with a cost of around £1.5bn, has a BCR of 0.92, so the project's costs outweigh its benefits, and will generate 2.7m tonnes CO2e. The BCR for the A303 Stonehenge scheme is lower still, just 0.55 on a comparable basis although this is boosted to 1.55 when a 'heritage' valuation is added.[130]

A number of regulatory organisations have now expressed critical judgement about the effectiveness of the consequences of continuing with new road building. In November 2022 the National Audit Office's review of *Progress with the 2nd Road Investment Strategy* concluded that because of programme delays and costs inflation 'National Highways and DfT … will face difficult decisions about how to prioritise work'.[131] In July 2023 Parliament's Transport Committee delivered a stinging criticism of the current approach to the Roads Programme: 'Throughout RISs 1 and 2, National Highways has overspent and under-delivered. The strategic road network is ageing and requires significant renewal work … Future investment should be focused on renewing older parts of the SRN and ensuring that resources are available to run the existing network efficiently'.[132] Finally in February 2024 the Office of Rail & Road (National Highways' formal regulator) opened an investigation into the performance of NH amid concerns about its management of the motorway and trunk road network.[133]

This is hardly a favourable background for Labour to be considering new roads infrastructure investment. But would it even be able to fund it? Shadow Chancellor Rachel Reeves has been equally clear about her fundamental priority: maintaining public expenditure within the limits established by her 'golden rules', which therefore also applies to the Roads Programme as a whole and to individual schemes. The exception to this rule however, the Shadow Chancellor said, are that 'existing government commitments to road [schemes] would be honoured' [134], and this is where pre-election politics could intrude . As of May 2024 the government has already issued its development consent orders (DCOs) for both the Stonehenge A303[135] and A66 North Trans-Pennine schemes[136] - although these are being challenged individually by judicial reviews - whilst the examining authority for the Lower Thames Crossing[137] scheme submitted its recommendation report to the Transport Secretary on 20th March, who is required to give a decision within 3 months.

Such schemes therefore misallocate very large capital sums with minimal economic benefits and very large carbon disbenefits. Seeing that not just the shadow Chancellor but Sir Keir Starmer himself has insisted that Labour would be 'ruthless when it comes to spending every pound wisely'[138], isn't it now incumbent that Labour review the current RIS2 and proposed RIS3 programmes for both cost effectiveness *and* decarbonisation?

August update: In view of the above it shouldn't be surprising that in her 'public spending inheritance' statement on 28th July, after discovering an apparent £22bn public expenditure 'blackhole', the Chancellor acted decisively 'We have seen from the National Audit Office the chaos that the previous government presided over. … Projects over budget … the spending audit has revealed nearly £800m of unfunded transport projects that have been committed next year. … the Transport Secretary will undertake a thorough review of all these commitments. … If we cannot afford it, we cannot do it.' The Stonehenge scheme mentioned above was cancelled and also the A27 Arundel bypass, which were described as 'low value, unaffordable'.

The public expenditure crunch will have ramifications affecting both transport expenditure and taxation, as we shall see elsewhere in this report *Q15/page 21 and Q34/page 36* but will such a limited review of the transport infrastructure portfolio be capable of adequately integrating and resolving the multiple problems embedded in DfT's capital expenditure programmes? The Transport Secretary's reassessment of her infrastructure portfolio will only be an internal review without external consultations and with criteria solely examining value for money rather than compatibility with Net Zero. It seems quite likely that the Treasury will be exploring the opportunities for at least some road schemes to be taken forward via private funding rather than considering whether they; this might be the case for the £9bn Lower Thames Crossing scheme.[139]

Transport Action Network have already begun to present analysis and arguments as to why a large roads programme should not be taken forward at all[140], and instead reallocated either to fixing potholes - motorists top concern - or to public and active transport. But it's unclear how in the limited time available to complete this review - just 10 weeks, before the budget on 30th October - it can be possible to resolve the complexity of funding options that rebalance the relationship over the next decade between Northern rail improvements and the current proposed roads programme. Surely that work cannot be completed before Spring 2025 which would mean that settling the content of RIS3 cannot proceed.

Q21 National policies encouraging road building and increased road traffic are often incompatible with local policies seeking to achieve the opposite and decarbonisation

For example Greater Manchester's 'Right Mix' vision is for no net increase in motor vehicle traffic, and to reduce car's share of trips to no more than 50%, with the remaining 50% made by public transport, walking and cycling.[141] South Yorkshire's Climate Emergency Framework seeks a 25% reduction in total travel demand by 2030; a 25% reduction in car miles by 2040; and a 30% reduction in freight miles by 2040. Its Active Travel Implementation Plan seeks to increase the levels of walking and cycling by 21% and 350% respectively, by 2040.[142] Like many combined and local authorities across the North these are Labour controlled and will be expecting that the obvious tensions between national and local transport and road traffic policies are resolved.

Q22 Will Labour also need to revise the spatial planning framework in order to deliver transport decarbonisation?

In the original May version of this report it was summarised that: 'In addition to its proposed revision of the national policy statements *Qs17-18* it has to be assumed that the current National Planning Policy Framework (NPPF) will also need to be reviewed in order to remove the current disconnect between transport planning and spatial planning'. In June the intention to revise both NPPF and NPSs was indeed confirmed in the manifesto - 'we will immediately update the national planning policy to ensure the planning system meets the needs of a modern economy' - and confirmed by a joint statement by the Chancellor and HCLG Secretary Angela Rayner on 8th July. The consultation process to revise the NPPF began on 30th July and ends on 24th September.[143]

The proposed changes as they affect transport are a positive change of direction - in terms of how to incorporate colocation into the local plan system so as to prevent emissions- generating trips being embedded in future spatial distributions - but are not adequately integrated with the NPPF section relating to climate. Consultation question 69 *A vision-led approach to transport planning* uses the right language - moving away from 'predict and provide', and 'challenging the default assumption of automatic traffic growth' - but the ever-present blindspot in current Labour policy-making, which causes it to 'forget about decarbonisation', means that that objectives and outcomes to reduce emissions are not mentioned or proposed for inclusion. There needs to be an explicit connection between this NPPF section and the later paragraph prescribing that the planning system should 'shape places in ways that contribute to **radical** reductions in greenhouse gas emissions' *our emphasis*; this could be suggested in consultation responses.[144]

In practice that interaction between spatial planning and carbon reduction - with consequential impact on future emissions - simply isn't happening when local development plans are prepared and examined at inquiry. Instead new developments such as housing estates, business and retail parks can still be directed towards out-of-centre locations, with poor public transport and requiring new or wider roads. This generates large volumes of vehicle movements, locking in additional carbon emissions for the next decades.

A number of organisations have already assessed this disconnect and proposed methodological interventions to overcome it. According to the organisation Transport for New Homes the existing process leads to 'an upside down geography', where there is an absence of a 'comprehensive integrated approach to spatial planning in the NPPF' which also undermines stated transport priorities.[145] The consultancy Create Streets has made repeated demonstration via a whole series of case studies where, by recasting the development objectives of a scheme it's possible to reallocate the proposed funding on conventional transport infrastructure, resulting in both reduced embedded emissions and multiple co-benefits. [146]

The recent Decarbon8 report *Bridging the Gap*, - which applies the Transport for the North future travel scenarios that in turn underpin the TfN decarbonisation strategy *see Q46* - explored at a level of detail what this might mean in the proposed development up to 2040 of the Elton reservoir area in Bury, Greater Manchester. It asked: 'a future based on urban living focussed around mass transit and active travel could be developed to put us on a pathway to net zero. But is such a future affordable and could it be made to meet the needs of a decarbonised society?' It concluded that achieving 'net zero mobility will require a move away from investing in ever greater capacity for car use. Instead, there needs to be a focus on creating more attractive places to live, work, and play, where there is less need to travel, with convenient alternatives made available'.[147]

This situation cannot be allowed to continue in the light of Labour's prescribed increases to housing targets, which takes centre place in revised NPPF.[148] Getting the 'vision led approach to transport plan' will require a co-ordinated approach between the DfT and MHCLG so that new development is actually constrained at locations where sustainable transport choices are not available. A view from Transport Action Network is that, as part of a process to make NPSs easier to update, there should be a better integration with the long-awaited national land use framework (and accelerated devolution, involving co-production with the English subnational transport bodies who are well-connected with regional spatial plans).[149]

Climate Risk Has been reduced by EV transition momentum but ..
Policy Frameworks that positive impact continues to be offset by upward pressure on emissions from the national road traffic projections/National Networks NPS/Roads Investment Strategy frameworks which generate continuing programmes of new road schemes. These induce more road traffic, often represent poor value for money; and cannot be challenged on climate grounds.
Implications for Labour Labour has not yet revealed how it will reconcile the tensions between infrastructure spending (supporting economic growth, more housebuilding priorities) and transport decarbonisation. The next government will need to revise the roads policy frameworks and of road investment strategies to make them compatible with NetZero.

Aviation and Airports policy

As noted in the introduction the concept of **risk** - 'climate risk' or 'delivery risk' - pervades this report, but nowhere more so than in this section. The word recurs repeatedly. Has the risk - that aviation emissions are too high (in relation to the Climate Change Act 1990 baseline, or the 2050 Net Zero end date); are too delayed in their rate of reduction (consequently excessively eroding the available carbon budget); or have been inadequately quantified and factored into policy - has that risk been insufficiently analysed and then incorporated into the DfT's policy assessment? It will be argued that the current aviation policy framework - the Jet Zero Strategy (JZS) - is deeply flawed essentially because of its failure to construct its approach around the responsible management of climate risk.

By contrast the analysis of two independent reports - *The role of aviation demand reduction in UK decarbonisation* by Element Energy, and *Net Zero and the role of the aviation industry* by Chatham House[150] – are instead organised around the concept of risk analysis and reduction. The Element Energy report uses the word 'risk' 67 times, the Chatham House report 85 times. But in the DfT Jet Zero Strategy (JZS) it appears just four times, and three of those are about investment risk.

To assist policymakers in reorienting their thinking around this concept of risk, here's how the Chatham House report explains the shift in emphasis to near-term, demand-side action before 2030 in order to minimise risk, in contrast to JZS's supply-side action after 2030. It suggests that 'a new [policy] framing is required, focusing on the potential of the demand side in the near term … to enable supply-side solutions to catch up, without baking in over-reliance risks on the supply side'. Why the emphasis on near-term action? Because 'the world could pass the 1.5°C objective in 2030', but 'many of the negative [supply-side] emission technologies being considered under net zero targets [are] only likely to be deployed post 2030', and 'by this time these tipping points may have already been triggered'. Consequently 'a prudent risk-minimization approach would be to reduce flying in terms of frequency and distances flown, over the remainder of the 2020s'.

The Chatham House report quantifies the amount of near-term demand constraint that will be required to minimise that risk: 'Under this lower-risk scenario, **UK demand in terms of passenger-**

kilometres flown in 2030 would need to be 36% lower than in 2019 to stay within the sector's fair share of global carbon budgets'. By contrast the DfT intends that passenger numbers in 2030 (not the same metric as passenger-kilometres) should be **+21% higher** than in 2019.[151] This illustrates the gulf between these analyses. Chatham House continues that, unfortunately, standing in the way of reducing climate risk is 'the political disdain for constraining demand for high-carbon products and energy services'. But, inverting that perspective, it concludes 'demand-management policies and technological solutions can work in parallel': 'Near-term policies to manage demand within the aviation sector could play a role in buying time for the development of supply-side decarbonization solutions'.[152] This is a sophisticated approach that integrates technical innovation with demand constraint, rather than seeing them as binary opposites.

The Element Energy and Chatham House analyses prioritise the inclusion and then reduction of aviation climate risk, which the DfT's does not. So will 'the political disdain for constraining demand for high-carbon products' identified as a characteristic of the Conservative government approach now also apply to Labour policymakers as they too face their responsibilities to reduce aviation's climate risk?[153]

The centrality of this issue for transport decarbonisation policy-making has most recently (May 2024) been brought into the spotlight by the court judgement in favour of the Friends of the Earth *et al* judicial review of the government's Carbon Budget Delivery Plan. This has particular implications for delivery risk as it relates to individual 'proposals and policies' within the ambit of section 13 of the Climate Change Act. The judgement considered how the government had analysed and balanced its adopted position on the delivery risk within the DEFRA decarbonisation programme but it's what the case documentation revealed about what might be the position within the DfT programme that is of much more interest – *see Q50*.[154]

Q23 At the halfway point of the 60 year Net Zero period (1990-2050) aviation emissions have actually INCREASED by +125%

Aviation (and shipping) emissions generated domestically and internationally are included within the requirement of the Climate Change Act that the UK's carbon and GHG emissions should be progressively reduced from the level of their 1990 baseline.[155] Yet at its pre-Covid peak in 2019 aviation GHG emissions had not reduced at all but instead increased from **17.0MtCO2e** in 1990 to **38.1MtCO2e** - a rise of **+124%**.[156] No other emissions sector or subsector has so blatantly flouted the principles and purpose of the CCA; over the same period UK emissions as a whole had reduced by -41%. This extraordinary circumstance has occurred because the aviation policy framework pursued by the DfT has over decades insistently promoted the expansion of airport capacity and passenger demand - from **104 million** passengers per annum in 1990 to **297mppa** in 2019 - **+186%**[157] - apparently regardless of the consequences for carbon emissions and, post-2008, of the obligations of the CCA. By Spring 2024 passenger numbers have rebounded to 97/98% of the 2019 peak, whilst airports such as Heathrow and Manchester have already exceeded 2019 levels.[158]

Q24 The DfT policy intention, post Covid, is that aviation should be allowed to increase its emissions by 2030 back to +108% ABOVE the 1990 baseline

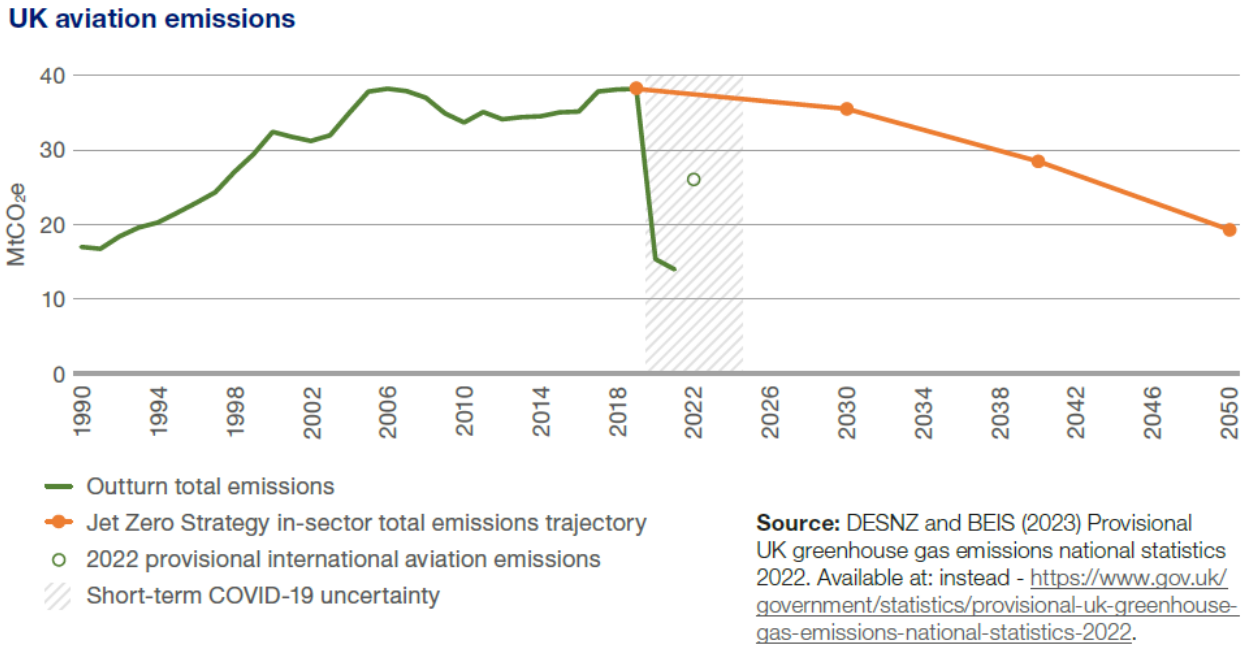
Presumably because the Transport Decarbonisation Plan in July 2021 had already announced that the age of 'guilt free flying' was almost upon us[159] the Jet Zero Strategy published one year later felt able to promote a further expansion of passenger demand, above the level of the 2019 peak, to **355mppa** in 2030. By then it would be **+240% above** its 1990 level.[160] This directly contrary to the

advice of the Climate Change Committee that there should be no increase at all in passenger demand above the 2019 peak until at least 2035. In the CCC 2024 Progress it was noted that 'passenger demand continues to grow quickly, presenting a risk that it may increase beyond pre-pandemic levels in the next year of data'.[161]

As a result of this continuing, policy driven rise in passenger demand, DfT have projected that aviation emissions in 2030 would be 35.4MtCO2e[162], still **+108%** above the CCA 1990 baseline. Across the decade of the 2020s aviation emissions would have reduced by only -7% since the 2019 peak, with by then just one third remaining of the Net Zero 60 year period. The consequence of this 'go slow' on decarbonisation is that every year of delay further erodes the cumulative carbon budget - see *Q27*.[163]

Q25 In 2050 aviation emissions will still be HIGHER than they were in 1990

Whilst the Transport Decarbonisation Plan was able to proclaim that 'aviation will reach net zero by 2050', the forecast aviation emissions tonnage numbers reveal how the ambiguity in the Net Zero concept is being exploited by the DfT. With the Jet Zero Strategy promoting an increase in passenger numbers to **430mppa** by 2050, **+313%** above 1990, it supports an outcome that aviation emissions in 2050 will be **19.3MtCO2e**, so still above the 1990 baseline level of **17.0MtCO2e**.[164] In other words there will have been **no decarbonisation at all by the aviation sector over the entire 60 year NZ period 1990-2050**, as can be seen in this DfT diagram[165]



Source: DESNZ and BEIS (2023) Provisional UK greenhouse gas emissions national statistics 2022. Available at: instead - https://www.gov.uk/government/statistics/provisional-uk-greenhouse-gas-emissions-national-statistics-2022.

The 2050 aviation emissions tonnage number could actually be any number, lower or higher than the projected 19.3MtCO2e as long as a superficially plausible scenario could be found for the availability of an equivalent tonnage of greenhouse gas removals (GGRs), at that date and continuing into the future to 'nett' off those emissions. But it's clearly a considerable risk for the Climate Change Act's core Net Zero concept if it could be threatened with structural failure at its irretrievable end point because of assumptions made about GGR availability 25+ years before. Essentially DfT aviation policy is making a 'land grab' in the early 2020s on, it turns out, the largest single tranche of the 2050 greenhouse gas removals.

When the Climate Change Committee's 6th carbon budget report was issued in December 2020 it included the assumption that no less than 40% of available GGRs (58MtCO2e) would be required to be assigned to net off residual aviation emissions of 23MtCO2e.[166] But in March 2024 international energy consultancy DNV reported their assessment of a substantial deterioration to the UK's Net Zero outlook, with a failure to achieve critical targets in 2030 and 2050 - they forecast only a -55% reduction against 1990 by 2030, not the -68% of the NDC - with residual transport emissions in 2050 of 34MtCO2e making up 27% of total UK residual emissions of 125MtCO2e.[167] That UK total would therefore require a more than doubling of greenhouse gas removals to be found - an impossibility - in which case the policy emphasis has instead to resort to taking action now in order to minimise that future risk. These are the sorts of contexts in which deliberately increased aviation climate risk should be assessed.

Equally pessimistic, in April the Energy Systems Catapult published its review, based on very extensive scenario modelling, of the technological innovations required to be deployed across the next decades, without which 'we do not currently see a credible pathway to Net Zero'. In relation to aviation, it has to resort to direct air carbon capture and storage (DACCS) in order to provide the necessary GGRs: 'Whilst use of liquid hydrogen may be a long term option for aviation it is not possible to replace the entire fleet of fossil fuelled aircraft before 2050. Unless sufficient synthetic fuel that is zero carbon at point of use can be produced by that time, DACCS will be required to abate aviation emissions'. Across the whole carbon budget it says that DACCS is 'essential to meeting Net Zero in all our scenarios and yet remains unproven at scale'; between 38-48MtCO$_2$ will be required in 2050.[168]

The point to note is that this additional risk is being incurred because the DfT policy framework continues to support and promote ever rising levels of passenger demand and, conversely, is preventing even consideration of demand constraint scenarios. At the same time it inflates improbable timescales around technological solutions - *see Q38*.

Q26 Aviation's NON-carbon climate impacts are even LARGER than its carbon emissions

This is because they do not include the **non-CO2** effects of flying - as distinct from the CO2 emissions generated by aviation jet engines - which are generally understood to be around **2-3 times as great** as the CO2 emissions alone.[169] The non-CO2 effects are currently not counted because the Jet Zero Strategy refuses to make any kind of allowance for them despite the magnitude of their multiplier impact, which can sometimes be worsened by more modern technology.[170] This is despite the fact that expert commentators including CCC have urged that these non-CO2 impacts should be incorporated within the DfT policy framework policy so that it incentivises the reduction of climate risks of this magnitude. Taking both CO2 & non-CO2 impacts into account, aviation emissions will hugely exceed the CCA 1990 baseline all the way to 2050.

As the Chatham House report concludes: 'for every year that passes where non-CO$_2$ effects continue to go unaccounted for, and unaddressed through policy, the non-CO$_2$ warming effect is eating into the remaining effective carbon budget.'[171] A very recent CREDS briefing reaches an identical conclusion, and links this to the ability to quickly introduce demand-side interventions: 'Latest understanding of global warming highlights the urgency of near-term action, not least to avoid … reaching climatic tipping points. Existing technological solutions proposed by the industry have generated concerns about their large-scale viability, the speed with which they can be deployed … In contrast, demand management measures … could cut both CO2 and non-CO2, are likely to receive

public support and could be implemented relatively quickly.'[172]

Q27 Aviation's cumulative climate impacts have also been excluded from the Jet Zero Strategy policy framework

As *Carbon Brief* has commented 'it is cumulative CO2 that matters in calculating the true climate impact of aviation emissions rather than a single year's emissions'.[173] However consideration of this cumulative impact has been omitted from the Jet Zero Strategy analysis in the same way that the cumulative impact of all transport emissions has been omitted from the Transport Decarbonisation Plan.[174] Consequently Carbon Brief concludes: 'If aviation recovers and continues to expand as previously, aviation emissions could grow to become a dominant portion of human emissions as other sectors decarbonise'. It cites another study which found that 'aviation emissions between 2015 to 2050 will consume 27% of the remaining [global] carbon budget.''[175]

Minimising the cumulative impact of aviation emissions can only be achieved by setting a pathway that pushes downwards to the greatest extent possible below its 1990 baseline, as early as possible, with the greatest certainty of delivery, and including all the impacting GHG emissions (see *Q26*). The JZS pathway meets none of those criteria. Element Energy quantifies the tonnage of unabated cumulative emissions in the JZS 'high ambition' scenario between 2020-50 - which DfT failed to disclose – as **900MtCO2**.[176]

Q28 Just 15% of passengers - the wealthy 'frequent flyers' - take 70% of all UK flights

This problem of the erosion, not just of the aviation carbon budget but the UK one as well, is largely a direct correlate of the increasing passenger demand which the DfT has been encouraging. It's only a small proportion of people who are driving that demand upwards; by contrast more than half the UK population **don't** fly at all in any given year, i.e don't use aviation transport mode once a year, which is in complete contrast to most other modes.[177] So the benefits of increasing the volume of air travel that the government is promoting all the way to 2050 will accrue principally to a small minority of wealthy travellers, whilst the costs of the climate change that this will precipitate will be incurred by the poorer non-flyers, here in the UK and globally.

Q29 Around 80% of air travel is for discretionary leisure with business travel an ever diminishing proportion

Business travel has been falling steadily for the last 2 decades since 2002, as companies have moved to more efficient means to undertake international commercial activity, and in 2019 was already just 17%. Therefore airport expansion is not a 'regrettable but necessary' requirement for continuing economic growth but instead will be catering mostly for those wealthy frequent leisure flyers taking discretionary trips. [178]

Q30 The UK already has more airport capacity than it needs to meet sustainable levels of demand all the way to 2050

Rising passenger demand then feeds through to support for increased airport capacity, which is also supported by the Jet Zero Strategy. The Climate Change Committee is clear that there should be no net expansion in airport capacity as existing aggregate capacity (370 million passengers) can already accommodate the passenger demand growth that they believe is compatible with the UK carbon budget. In December 2020, CCC's 6th Carbon Budget report had signalled that **no** increase in

passenger demand was possible before 2035, and established criteria for individual airports proposals: 'Net airport expansion should only proceed if the carbon-intensity of aviation is outperforming the Government's pathway and can accommodate this additional demand'. [179]

The Aviation Environment Federation (AEF) has previously made a detailed analysis of the sustainability of the government's and individual airports proposals for expansion, which tested existing runway and terminal capacities against levels of future flights and passenger demand. It concluded that 'sufficient airport runway capacity exists to accommodate the maximum level of growth considered possible by the CCC'. At present the AEF view is that there is around 30% capacity 'headroom' still available, and yet they note that 'current planned and recently approved airport expansions will result in nearly three times' the capacity expansion that CCC says is sustainable up to 2050.[180]

Q31 There are now multiple proposals for airport expansion, some already approved

In April 2023 the Financial Times reported that 'the UK's top airports aim to fly 150 million more passengers a year'.[181] The expansion of these eight airports would allow a 60% increase in the number of passengers that already use them. There are issues about both the number and the scale of expansion applications. Recent decisions to allow Bristol, Southampton, Luton phase 1, and Stansted, have a combined capacity increase of about 12mppa but Luton Phase 2 would add a further 13mppa and Gatwick would add 20+mppa plus (both are still pending). Reviewing current proposals for airport expansion in June 2023's Progress report CCC assessed that: 'If all applications were approved, this would increase terminal passenger capacity by 97.4 million compared to 2018 levels, bringing total capacity to 467 million. The Jet Zero Strategy commits to a 70% increase in terminal passengers on 2018 levels, equating to 482 million passengers by 2050'. Its conclusion was directly critical: 'Current Government policy is not delivering an outcome consistent with' the CCC recommendation that there should be 'no net airport expansion unless the carbon-intensity of aviation is outperforming the Government's pathway and can accommodate this additional demand'.[182]

The AEF conclusion on the carbon impacts that could result from this level of expansions is that 'if all airport expansions are allowed to proceed it could result in up to 9Mt of extra CO2 per annum by 2050 if the Government's optimistic forecasts for the scaling of alternative aviation fuels are not met'; that is *on top of* the 19MtCO2e the industry will still be emitting annually in 2050.[183]

Q32 Continuing airport and aviation expansion flouts the Climate Change Committee recommendation that this is incompatible with the UK Net Zero target

Having reviewed the recent spate of expansion applications, the CCC 2023 progress report made its views plain: '… airports across the UK have increased their capacities and continue to develop capacity expansion proposals. This is incompatible with the UK's Net Zero target [unless its carbon-intensity criteria are met] … 'a UK-wide capacity management framework … should be developed by the Department for Transport … over the next 12 months and should be operational by the end of 2024 at the latest [which would] … annually assess and, if required, control sector CO2 emissions and non-CO2 effects'. 'No airport expansions should proceed until [the] capacity management framework is in place'. This recommendation was repeated in the 2024 Progress report, as an indication of CCC's increasing concern.[184]

The response of DfT and airport operators alike was to thumb their noses at the Climate Change Committee. Its recommendation to establish a capacity management framework was rejected in the

government's response to the Progress report.[185] And operators can in practice ignore the CCC strictures because they know that JZS reaffirms 2018's *Best use of existing runways* document which provides policy support for the expansion of all airports: it continues to have 'full effect as a material consideration in decision making on applications for planning permission. Our analysis shows that it is possible to achieve our goals without the need to restrict people's freedom to fly.'[186] Policy backing for such expansions, in addition to flouting the CCC recommendations, is irresponsible in that major investments in airport expansion risk becoming stranded assets, and are an unnecessary gamble on the disputed government claim that a purely technological approach to aviation decarbonisation will be successful. In terms of the detailed timetable for the determination of current expansion applications by Gatwick, Luton and London City - which therefore flout the CCC recommendation - some of these could well to fall to be decided in the opening months of an incoming Labour government.[187] .

[Stop press: on 19th August the Secretaries for Transport and Planning decided jointly to approve the application from London City Airport to expand from 6.5mppa to 9mppa. They accepted the argument from the operator that 'long term growth in demand, whether for business or leisure, is likely to recover and continue to grow' and endorsed the position in relation to climate impacts that the proposals would 'ensure compliance with national policy' including all the key components of the current aviation policy framework including to *Making Best use of existing runways* and the Jet Zero Strategy itself. This decision was announced just one month after the Climate Change Committee had again repeated its recommendation that 'No airport expansions should proceed until a UK-wide capacity management framework is in place'.[188]**]**

Q33 What is Labour's proposed approach to aviation and airports policy?

NB *This section mostly reflects the state of knowledge as of May 2023 but some revisions for developments in the period afterwards have been made.* At the moment **this is not known**, similar to what we found at Q18 in relation to roads policy. It noted that then Shadow aviation Minister Mike Kane MP (whose Wythenshawe & Sale East constituency includes Manchester Airport) gave a speech to the Airport Operators Association annual conference in January 2023, the contents of which were broadly aligned with the approach of the Conservative government's Jet Zero Strategy. It made no reference to the difficult issues referred to in this report including climate risk, increased passenger demand and proposals for continuing expansion of airports capacity.[189] Now confirmed as aviation (and shipping) minister Mr Kane has so far made no substantive statement about the Labour government's future aviation strategy.

However more senior ministers have, including the Chancellor and the Transport Secretary. Immediately before the election, Rachel Reeves answered a journalist's question about a possible 3rd Heathrow runway: ' … I have nothing against expanding airport capacity. … . We would need to look at all the evidence including around the environment, but you know I back our airports. I back investing in infrastructure.' Other newspaper articles indicating possible Labour support for Heathrow expansion appeared on 22nd and 24th July, significantly just days after the Climate Change Committee had reaffirmed its recommendation opposing all airport expansion. Her comments framed airport/runway expansion as if it should be understood as just another category of 'essential infrastructure investment' which the manifesto has strongly committed to, but without including airports.[190]

At Farnborough Airshow on 22nd July Transport secretary Louise Haigh continued in the same vein: '"We're serious about helping aviation *grow* sustainably, ensuring it continues to create jobs, facilitate trade and power our economy. That's my priority." *emphasis added* She has stated that

moving to sustainable aviation fuels will 'future proof aviation', a claim that cannot be correct for the 2020s and 2030s when there will be insufficient production.[191] Potential investors in UK SAF production, she said 'need certainty of demand [and] certainty of the government's commitment' but did not repeat the caveat made in the Conservative government consultation on the proposed SAF revenue certainty mechanism, that 'any mechanism will be industry funded'.[192] Note that all the language is about providing certainty for aviation growth (in order to contribute to economic growth), all of which points towards Labour's possible intention of continuing with the approach of the Jet Zero strategy. For his part, Labour leader Sir Keir Starmer, acknowledging in February 2024 Gatwick's current expansion application to 75mppa, for which the planning enquiry is expected to conclude shortly, recently stated he was a 'big supporter of Gatwick'.[193]

It's against this background that the Labour government's decision to immediately approve the expansion of London City airport should be interpreted.[194] It's worth recording that the proposal for additional Heathrow runway capacity originated in the Labour government's 2003 *Future of air transport* White Paper and continued to receive support from a succession of Labour transport secretaries. It was the successor Conservative government, albeit under pressure from their Liberal Democrat coalition partners, who immediately cancelled the scheme in 2010.

The 2019 Labour election manifesto included a short paragraph which stated that, having 'recognised' the assessment of the Davies Commission concerning airport capacity in the South East (2015) which recommended a 3rd runway at Heathrow[195], 'any expansion of airports must pass our tests on air quality, noise pollution, climate change obligations and countrywide benefits. We will examine fiscal and regulatory options to ensure a response to the climate crisis in a way that is fair to consumers and protects the economy'. The generality of these 'tests', that were also limited to cases of airport expansion, means that it's difficult to discern what the manifesto was in fact committing to. It seems significant that these airport expansion tests were omitted from the 2024 manifesto, and only referenced after the election by 'a Labour source'. Consequently they do not constitute a formal commitment .[196] *And see Q36* for the absence of controls of airport expansion proposals.

In our northern regions, where almost all the newly elected city region mayors are Labour, what is in fact a reversion to positions first espoused in the decade of the 2000s - that airports and their spatial hinterland should be critical hubs for economic growth - is being redefined to occupy an contradictory place within a new Labour 'green industrial strategy'.[197] The case being made by Oliver Coppard, Labour mayor for the South Yorkshire city region for the reopening of Doncaster Sheffield airport is linked to an argument that Sheffield could thus become 'a global centre for innovation-inspired advanced manufacturing' anchored by Boeing's advanced manufacturing research centre co-founded with the University of Sheffield in 2001. The mayor recently chose to allocate £138m of scarce capital funding as just a first commitment to reopen the airport despite the fact that it closed in November 2022 because it was no longer commercially viable. In August 2024 West Yorkshire Mayor Tracy Brabin supported plans by Leeds Bradford airport to expand from 4mppa to 7mppa in 2030, on the grounds that this will 'serve as a catalyst for considerable, long-term economic growth' despite the fact that her own emissions reduction pathways study requires a reduction in aviation emissions by the same year.[198]

There are also conflicts of interest, most exemplified by the majority ownership by the Greater Manchester councils, not just of Manchester Airport but Stansted and East Midlands airports as well; by Greater Manchester Mayor Andy Burnham's view is that 'a growing Manchester airport … is integral to our plans of truly creating a Northern powerhouse [and] an opportunity any government should be jumping at'; and by the presence of the leader of Labour controlled Manchester City Council on the board of Manchester Airport Holdings at the same time as debates in the council are

expressing concern about aviation's climate impacts. A March 2024 Arup report links together Manchester airport tripling its contribution to the UK economy and 85,000 new jobs by 2050 with total passenger numbers rising from 27mppa to 60mppa, without pondering the climate risks also being exacerbated.[199]

Q34 Will Labour be able to deploy taxation measures as part of its toolbox to constrain aviation emissions?

The new context for taxation needed to fill the £22bn 'black hole' in order to fund public services has already been noted in relation to roads - *see Q 14 page 20* Going back just 9 months however the position of the Labour leadership was somewhat different. Then they were signalling that an 'in principle' block against the use of taxation incentives to decarbonise if those were to 'increase the burden on working people'. Over the years it's been a familiar argument from some Labour MPs opposing constraints on increasing passenger demand that these would prevent ordinary people taking flights, a position which ignores the fact that pressure for expansion comes instead from the wealthy frequent flyers *Q28*. But now,

Whilst discussions about the taxation of aviation tend to concentrate on the argument that international agreements can prevent fuel for international flights being taxed, as the Institute for Fiscal Studies noted more than a decade ago: 'But taxes on tickets, passengers and flights are all permissible'.[200] For example, all types of passenger transport are generally zero-rated for VAT. This means that both sustainable train and unsustainable plane fares are treated the same, when dis/incentive slopes against unsustainable activity should instead be introduced. Yet the most recent change to aviation taxation was in the wrong direction when in April 2023 air passenger duty on domestic flights was halved, resulting in more emissions.[201] The undertaxation of aviation also represents an opportunity for Labour to raise revenue in order to fund more sustainable transport and its decarbonisation. In 2022 campaigning organisation Transport & Environment have examined investigated the detailed circumstances in which a kerosene tax can be applied to international flights to significant markets such as the EU and US. T&E assessed that this could raise nearly £7bn.[202]

In the light of the £22bn public expenditure 'blackhole' found by Chancellor Rachel Reeves, the need for the Labour government to actively consider increasing taxation which disincentivises higher carbon emissions now has additional salience: that revenue will also contribute to funding essential public services which will otherwise be cut. Whilst taxation options such as increases to air passenger duty (APD) or a possible frequent flyer levy are relatively well-known, the Green Alliance briefing about the benefits of a kerosene tax argues that 'In 2025, the first year of operation, it could raise £800 million. By 2035 our modelled rate shows tax income of £8.5 billion'. Annual emissions restraint increases to around 7MtCO2e in 2035, and over 10 years cumulative emissions savings would be around 24MtCO2e.'[203]

Q35 Applying a moratorium just to 'airport growth' - defined as no more new *runways* - will not stop further aviation emissions expansion

With the existing surplus in UK runway and terminal capacity *Q30* passenger numbers and aviation emissions can continue to grow within the substantial headroom available within existing runway capacity or terminals planning permissions. In the North of England Manchester Airport, with 2 runways, could potentially double its present passenger volumes to 50+mppa (million passengers per annum) and indeed has that ambition Other examples include the intentions of Leeds Bradford airport to expand to 9mppa by 2030, plans to reopen the Doncaster airport site (supported by

Labour MPs including Ed Miliband), and the approval given by Labour ministers on 19 August 2024 for London City airport to increase from 6.5 to 9mppa. So an ostensible ban on 'airport expansion' can in practice be easily evaded.

Applying a basket of near-term demand management mechanisms, as recommended by both the Chatham House and Element Energy, provides a mechanism to close this loophole so that they do have a definite effect in the 2020s: 'Given that demand-side emission reductions can be implemented quickly, with little lead time, demand-side responses are likely to be the only fast-acting policy measure left at our collective disposal to avoid disastrous climate impacts' says Chatham House. But Element Energy note that the 'political disdain' to demand management interventions mentioned earlier still needs to be overcome: 'behaviour change is something we could deliver in a short timeline with the correct political leadership'.[204]

Q36 The aviation policy framework effectively prevents any challenge to airport and aviation expansion on climate grounds

Arguments against airport and aviation expansion encounter the same obstacle we've already noted applies to road schemes *Q17*, and again the same *de minimis* method has been deployed by the DfT as a means of excluding climate impacts from being used to challenge assessments and planning decisions. In the case of the June 2018 Airports national policy statement (NPS) - which secured parliamentary approval for a Heathrow 3rd runway – it continues to define the test for airport expansion as being that 'any increase in carbon emissions alone is not a reason to refuse development consent, unless the increase … is so significant that it would have a material impact on the government's ability to meet carbon budgets' (para.5.82).

The NPS presented to MPs the conclusion that 'that any one of the three shortlisted [Heathrow runway] schemes could be delivered within the UK's climate change obligations'. This was on the basis of a endnote reference to a technical appraisal report which found that with a couple of interventions, UK aviation emissions in 2050 could, just about, be constrained within the then CCC planning assumption of **37.5MtCO2e**. This however was before the CCA 2050 target was reduced to Net Zero in May 2019, and the consequential reduction by CCC of its recommended aviation emissions limit of **23MtCO2e**.[205]

So the NPS (para.3.64) is no longer compliant with NZ and for that reason alone would have to be revised as part of the updating of all national policy statements announced at the 2023 Labour party conference (see *Q18*), and confirmed by the Chancellor's statement on 8th July.[206] This will require that some of the JZS key components will have to be revisited. Additionally: the Aviation NPS continues to provide policy support for the position that 'there is clear and strong evidence that there is a need to increase capacity in the South East of England by 2030 by constructing one new runway' (paragraph 2.32), at Heathrow; and its statement that only domestic aviation emissions are formally included within the UK carbon budget is no longer the case (5.72).

However JZS is more reliant on DfT's *Making Best Use of existing runways* from 2018 which supports the expansion of all airports.[207] When tested in the appeal by Bristol Airport against a rejection by North Somerset Council of its planning application to expand, that decision was found by the Planning Inspectorate to be insufficient to justify refusal, using a *de minimis* rationale.[208] The government position is that aviation emissions policy is best determined at the national level, in which case the precedent now is that attempted local restrictions relating to concerns about the emissions consequences of airport expansion will be overruled.

As (more than) a token of DfT's dismissal of the Climate Change Act regime it should also be noted that despite a commitment in June 2021 to legislate for aviation's formal inclusion in carbon budgets, some 3 years later that has still not been adopted and almost certainly won't occur under this Conservative government.[209] Will Labour meet that commitment immediately it enters office?

Q37 The Jet Zero Strategy removes all regulatory controls over airport capacity, passenger demand, and emissions growth

The Jet Zero Strategy is the principal aviation policy framework that the next government will inherit. What was not noticed at the time of its publication in July 2022 is the complete absence of mechanisms that could be used by government to manage, incentivise or constrain the level of aviation activity should that be necessary on climate grounds. They had quietly been excluded, which must have been the deliberate intention of the DfT. There is, JZS asserts, no need to constrain passenger demand[210] or airport capacity[211]. It must follow therefore that the level of aviation emissions will increase (relatively) following expansions of demand and/or capacity, and will be determined essentially by the market, unless there is a 'magical' technological intervention of the type that the Jet Zero Strategy in fact proposes - see *Q38*.

The next government, should it choose to keep the JZS policy framework in place, will therefore have no levers available to restrict the growth of aviation emissions, annually and cumulatively. With JZS came a number of associated documents that buttress its unsustainable approach: not just *Making Best Use* (Q35) but also May 2022's *Flightpath to the future*, with its '10 point plan for the future of UK aviation', which in turn connects back to the Aviation NPS .[212] Being able to have effective policy control over levels of demand is even more important in view of the findings of e.g the More in Common's polling and analysis of attitudes around aviation, which indicates that it is almost impossible to craft an approach based on influencing individual attitudes towards less or more flying in order to constrain levels of passenger demand.[213]

Q38 The Jet Zero Strategy only deploys technology-based solutions which cannot be effective for decades; constraining rising passenger demand is specifically excluded

To simplify: the quantity of aviation emissions is a product of demand side increases in passenger numbers induced by price, and supply-side expansion of airports and airline capacity, together with improved efficiency. There can be numerous types of interventions acting on both demand and supply, all of which ought to be fed into scenarios trying to model how to constrain emissions so that they fit within the shrinking carbon budget available. But **all 6 of the JZS intervention types act only on the supply-side, almost entirely via technology** which would however only be strongly influential decades later. JZS excluded all demand side interventions, in its consultation and adopted versions. Both the Chatham House and Element Energy analyses of the actual abatement potential of the JZS 'technology only' interventions is too detailed to include within this report; it's recommended that Labour policymakers take the time to review their critiques of these interventions. What follows is a brief summary of the reports' findings about the measurable contribution that early demand constraint can make to reducing aviation's annual and cumulative emissions. [214]

All three of the DfT JZS and the Chatham House & Element Energy reports are based on scenario modelling, but the quite different outputs they have produced can be explained firstly by the fact that, as noted, the DfT chose to **deliberately exclude any scenario options and assumptions that constrained the level of passenger demand**. Consultees on the draft JZS objected vociferously to this distortive omission from the options presented, because this skewed the modelling outputs, but

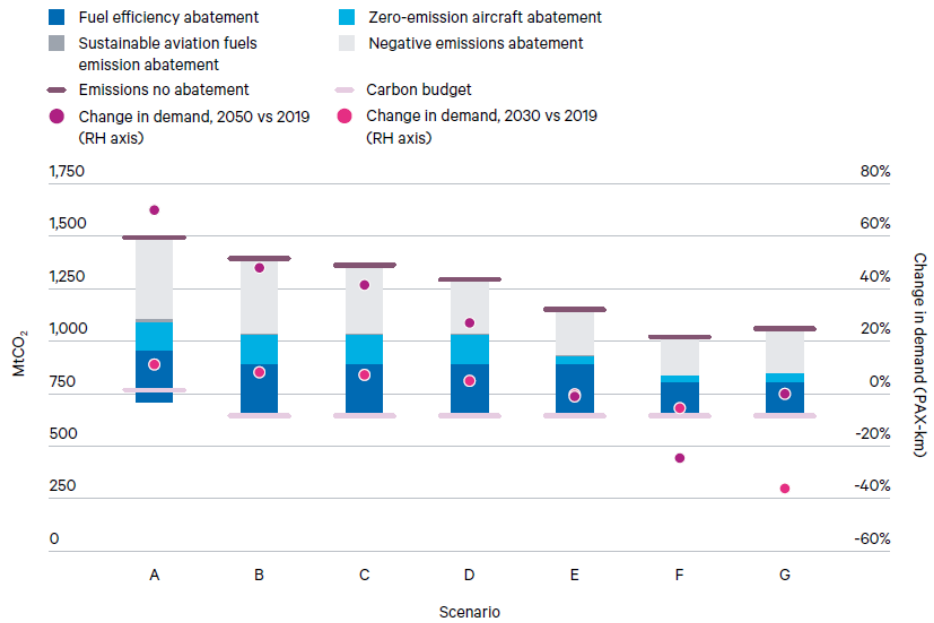
were still ignored.[215]

Secondly the DfT model was operated so that, within all the runs adjusting the balance between its variables, it selected to maximise increases in passenger demand rather than reductions in carbon emissions. Consequently all four scenarios then presented within the JZS consultation included fixed assumptions of passenger growth of 58-60%.[216] There wasn't even a sensitivity test of a lower growth option e.g the CCC recommendation that there should be no growth in passenger demand beyond the 2019 peak level until 2035 which, because of the secular trend in annual fuel efficiency improvements, would have resulted in an emissions reduction pathway consistent with the downward trend required by the Climate Change Act.

The Chatham House scenarios were designed to test a different question: 'what is the maximum allowable demand (passenger-kilometre flown), while ensuring the UK aviation sector remains within its fair share of the global carbon budget?'[217] Within its modelling, the level of permissible passenger demand is made subordinate to the higher priority outcome of minimising climate risk. In a sequence of 7 scenarios, starting with the JZS 'high ambition' one, and applying precautionary assumptions about the take-up and availability of the JZS 'technology-only' solutions, the Chatham House modelling progressively constrained the volume of passenger demand such that it stays within the available carbon budget.

Because the Chatham House analysis is designed to explore the utility of near-term demand management, the level of allowable passenger demand that will need to be regulated in the 2020s and up to 2030 (as well as to 2050) is calculated as an output. In this figure **2030** passenger demand is indicated by the line of bright pink dots within the dark blue section of each column (measured against the right-hand scale of 'change in passenger demand' in passenger kilometres, compared to peak 2019) which runs from around +10% in left-hand column A to around -40% in right-hand column G.

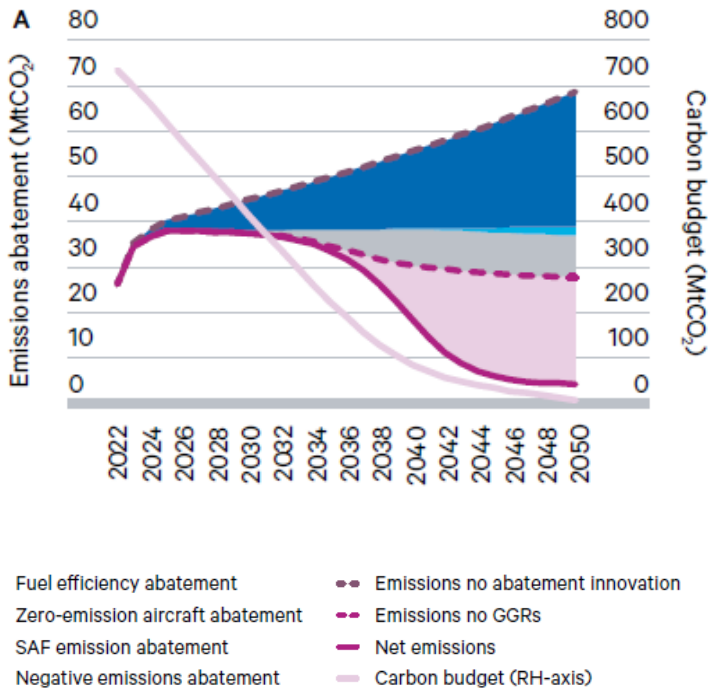
Figure 5. Summary of UK aviation sector aggregate emissions abatement (2022–50), and maximum demand (PAX-km) to stay within a fair share of global carbon budgets, under all modelled scenarios



source: Chatham House Net Zero and the role of the aviation industry figure 5

Chatham House describes Scenario A (JZS 'High Ambition') as the 'most optimistic', and then the other scenarios through to G as being increasingly 'the most realistic, with least risk of overreliance on future decarbonisation options'. By scenario E it can be seen that 2030 passenger demand has to be held at the 2019 level (i.e no growth beyond 297mppa). In Scenario G an 'emphasis of demand reduction is placed on the near term to *minimize the risk of relying on future decarbonisation that may under-deliver*, resulting in 2030 demand declining by 36.1% relative to 2019. Demand in 2050 is equivalent to 2019 levels' *added emphasis.* This would require passenger demand reducing to around 190mppa in 2030.

The Chatham House report then proceeds to review the effectiveness of the various supply-side abatement mechanisms imposed by JZS so as to 'unpack [their] supply decarbonization assumptions, [whilst] lowering the associated reliance risks'. Figure 6A presents the technology shares and timescales for the JZS 'high ambition' scenario. It can be seen that sustainable aviation fuels only begin to make a small impression by around 2035 (grey wedge), whilst zero emission aircraft have almost no impact at all, even by 2050 (bright blue wedge). The remaining wedges are ordinary fuel efficiency abatement (dark blue) and 'negative emissions abatement' (pink) which requires greenhouse gas removals. The net emissions pathway (dark pink) exceeds the carbon budget pathway (light pink)



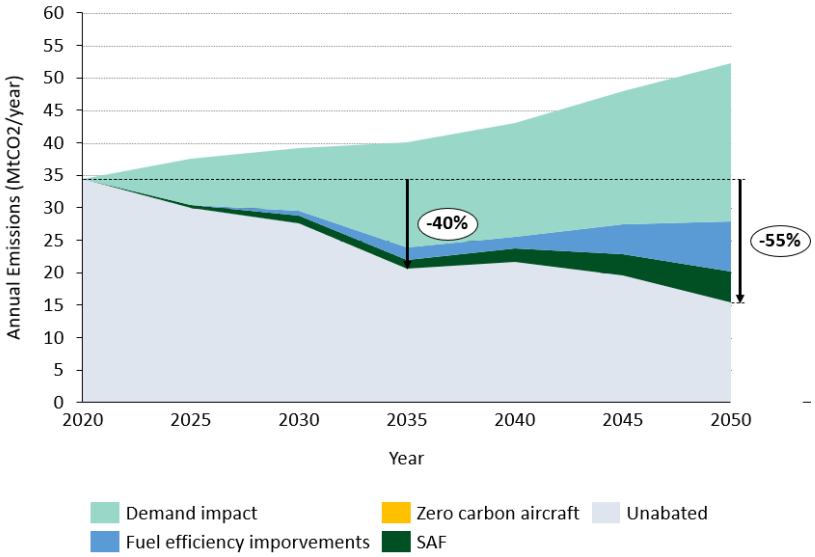
source: Chatham House Net Zero and the role of the aviation industry figure 6A

In the Chatham House modelling its two principal abatements are achieved by continued delivery of annual fuel efficiency improvements (dark blue wedge) which, if attained, would only constrain emissions to around the 2019 peak level , thus with no reductions contributing to a Net Zero compatible pathway. Consequently, and because of the limited (and uncertain) nature of future zero emission aircraft and SAF interventions (bright blue & grey wedges), this therefore requires almost complete dependency on 'negative emissions abatement' (pink wedge), again using as yet unproven removal technologies, reliance on which represents 'a significant risk to any strategy'.[218]

Whilst the DfT proposals for a Sustainable Aviation Fuels mandate which sets increased rates for SAF usage - with a bill now announced in the July 2024 Kings Speech - this will only be 10% of the will be there the total fuel supplied to aviation in the UK in 2030, rising to 22% by 2040.[219] The CCC verdict on zero emission aircraft reaches the same conclusion: '… the likelihood [is] that hydrogen aircraft will have only a small impact on aviation emissions even by 2050'.[220]

Additionally whilst DfT argue that 'the challenge is to provide the right incentives and support to achieve this aim [NZ] in the least restrictive and most cost-effective way possible,'[221] the Jet Zero Strategy actually didn't set those 'right incentives' via pricing and taxation signals in support of its own proposed supply-side interventions.[222] Instead an unjustifiable public subsidy for their development amounting to around £1.8bn over the period 2020-30 has been provided.[223] In fact the government has lowered the cost of aviation pollution by issuing, including to airlines, a large volume of free emissions trading scheme (ETS) allowances which consequently caused the price of carbon to halve, just when it needed to be tightening.[224] In terms of the genuine sustainability and credibility of these 'technology only' interventions, this has been questioned in newspaper articles such as *Scientists pour cold water on UK aviation's net zero ambitions* and *Calls for tighter rules on biofuels imports to root out palm oil fraud.*[225]

In order to demonstrate the significance of, and substantial decarbonisation benefits from, near-term demand-side interventions, Element Energy have quantified the difference between the cumulative emission savings these are capable of achieving, comparing the DfT High Ambition scenario and their own "fairer share" scenario with early demand reduction measures The latter's combination of early demand constraint and technological interventions has the potential to reduce annual aviation emissions to around 21MTCO2e in 2035 compared to 33MtCO2e that Element Energy model would be the DfT scenario output; this represents a 40% reduction (as shown in this figure) on their 2020 baseline and greatly diminished erosion of aviation's cumulative climate impacts described in Q27.[226] In the case of the DfT scenario the reduction in 2035 would only be 5%.



source: element energy 'the role of aviation demand reduction in UK decarbonisation management figure 23

The overall assessment of the Element Energy study is that 'there are significant risks in the DfT High Ambition scenario', as adopted by JZS, and that 'it is unclear how DfT plans to deliver these high rates of technological improvements, SAF uptake and aircraft efficiencies'. CCC have reached the same conclusion: ''… risks remain unaddressed, particularly for securing SAF feedstock and SAF

import supply, as well as planning for potential delays to nascent technology roll-out. … The required emissions reduction for the Sixth Carbon Budget period is therefore at significant risk.'[227] New analysis by Carbon Brief quantifying the balance between the claimed positive benefits from the use of SAF - these will be overwhelmed by rising passenger demand – underlines the significance of DfT's removal of the latter from their policy analysis.[228]

And both the Chatham House and Element Energy reports demonstrate the increased climate risk that is incurred as a result of the DfT refusal to assess and then adopt demand-side measures alongside their supply-side counterparts, where in fact both are necessary. 'The high technology ambition of the DfT High Ambition scenario results in a high risk of missing the emission budgets', say Element Energy. 'As a result, significant demand reduction is required to account for and mitigate the risks found across DfT's scenarios'.[229]

Because this report is not advocating specific decarbonisation 'solutions', the demand-side options are not spelt out here (but are in both Chatham house and Element Energy reports). They include: reform to existing policies such as air passenger duty, fuel duty, value added tax, carbon pricing and offsetting schemes; and potential new policy options include the introduction of a frequent flyer levy (FFL), and reducing the availability of flights via management of airport capacity. The most recent report about FFL by New Economics Foundation/Possible is *A frequent flyer levy: sharing aviation's carbon budget in a net zero world* from April 2022.[230] Its detailed analysis shows that, with a possible FFL rising tax schedule, the number of flights taken by the 40% least well-off - an issue frequently raised by Labour politicians - is barely changed whereas that by the wealthiest fifth reduces by almost 30%.[231]

This question crystallises the issue and choices for Labour policymakers. The DfT approach to attempting aviation decarbonisation is discredited because it involves firstly making the scale of the problem worse by deliberately promoting additional passenger demand, and then limiting proposed solutions to a number of technological interventions that it knows are not available in the short or medium term. For Labour having **a credible approach to demand-side management is unavoidable**, otherwise it too will become responsible for the incurring of that additional climate risk.

Q39 Reviews of whether the Jet Zero Strategy is actually reducing aviation emissions are scheduled only every 5 years, starting in 2027

This timetable[232] embeds further problems into an aviation policy framework already beset with flaws. If such reviews, when eventually carried out, show that the sector is not meeting its emissions reduction trajectory then JZS says that the DfT might '*consider* what further measures *may* be needed …' *JZS p.10* What this means in practice is that the government (including a next Labour one) would not be able to respond to an inability to deliver aviation emissions reductions across most of the second half of the 2020s. The CCC has already spotlighted this vulnerability: '…a review in the late-2020s would likely not provide enough time to implement mitigating measures if the Government is not on track to meet its pathway…' [233] Asked by the Environmental Audit Committee to 'reconsider the role of demand management measures in aviation emissions policy' (should that emerge as an issue in the DfT's proposed timeline for a monitoring review by the end of 2025), but in the meantime to 'develop policy proposals on demand reduction, including consideration of greater use of digital technologies, reducing the cost of rail travel, and a frequent flyer levy' - the DfT effectively said ''**No**'.[234]

Q40 There is an increasing risk that aviation decarbonisation won't be achieved, with serious consequences for the UK carbon budget and millions of businesses & households

All three of Chatham House, Element Energy and CCC have reached the same conclusion about the need to respond to aviation climate risk generated by the level of passenger demand, which DfT has chosen to ignore and exclude from the policy choices offered for consultation and then imposed in its Jet Zero Strategy. Genuine sustainable development requires that an optimal balance is struck across the range of economic, social and environmental objectives. The DfT's structuring of aviation policy violates that principle. Certainly the DfT has never provided a reasoned justification as to why it is that aviation as an industry sector should alone be exempt from the decarbonisation imperative established by the CCA, or transparently assessed what would be the distribution and cost consequences falling on all other sectors as a result.

Element Energy conclude that this reliance on long-term and uncertain technological solutions has a consequence: there will be a 'substantial abatement requirement through other sectors in the short term'.[235] In other words there will need to be additional emissions reductions (and associated costs) affecting hundreds of thousands of businesses and millions of households, the majority of which don't use this transport mode at all. It's already been noted *Q25* that the CCC modelling for the 6th carbon budget had calculated that around 40% of available GGRs would be required to be assigned to net off residual aviation emissions of 23MtCO2e. Grantham/Centre for Climate Change Economics & Policy conclude that 'currently there is a lack of clarity over key governance questions' concerning GHG removal technologies including 'how these technologies would be funded and who would pay'. It states that 'Looking at the sector implications of the different funding models, aviation emerges as an important point for intervention … to reduce unfair distributional impacts.'[236] It stresses the importance of applying a 'polluter pays' principle. CCC had already assessed in 2020 that 'If full decarbonisation were paid for using GHG removals to offset residual emissions, this may add a further £41 [to a return ticket from London to New York in 2050] giving a net added cost of £56.'[237]

Epilogue on aviation policy: The DfT view, said with a straight face, is that it is 'critical that the aviation sector plays its part in delivering the UK's Net Zero commitment'. The Jet Zero Strategy has been variously described by ministers and others as 'not intended to clip the wings of the sector'; that it would 'maximise the opportunities decarbonisation brings to the UK'; that it's 'designed to future proof aviation so passengers can look forward to guilt-free travel'. An alternative interpretation would be that it embeds deliberate, repeated and reinforcing risk-taking within the current DfT aviation policy framework.[238] The test for Labour now is: whether to keep that policy framework in place or alternatively replace it with one that adequately controls and reduces climate risk.

Climate Risk has been ignored during two decades of expansion. Risk is increasing in multiple dimensions because: the CCA 1990 baseline is ignored; additional demand is promoted by policy; and the non-CO2 and cumulative impacts are excluded but also ignored (in the context of the May 2024 Net Zero II judgement).Also because the ..
Policy Frameworks have removed all regulatory controls on demand, capacity and emissions. The DfT policy frameworks (PFs) are focused exclusively on supply-side interventions which can't impact on emissions in the next 10 years, whilst possible demand-side interventions have been excluded. PFs asymmetrically serve the interests of a small percentage of wealthier users. The Jet Zero Strategy policy framework is dysfunctional, and will have to be withdrawn to prevent further/increasing climate risk. The Airports NPS will need to be revised as well.
Implications for Labour Labour will have to manage passenger demand in order to protect the UK carbon budget against increased risk. To do this a new aviation policy framework delivering accelerated decarbonisation with certainty and equity will have to be introduced.

Public and Active Transport

Q41 How much decarbonisation can be achieved by improvements in public transport?

Proposals to improve or restructure public transport have always dominated Labour manifestoes (in 2015 and 2019), and with good reason: they are likely to be electorally popular, and certainly in the case of buses, the period of deregulation initiated by the Conservatives in 1986 has resulted in a long-term collapse in bus patronage and services (except in London). Before the election Labour provided more detailed information about its intentions to franchise or bring back bus services under 'local control' (28th March) and renationalise rail services (over the life of the Parliament - 25th April).[239] The bus statement focused on 'a promise to allow every community across the country to take back control of local bus services'.

Notable by its absence in *Labour's plan to fix Britain's railways* was, and then in the definitive Labour manifesto on 13th June, was a specific commitment to 'deliver a credible and transformative programme of transport infrastructure including Northern Powerhouse Rail within our fiscal rules' given by shadow Secretary of State Louise Haigh MP in her 11th October 2023 conference speech. However that absence was made good in now Transport Secretary Haigh video tweet of 18 July: 'We'll finally give the North the rail infrastructure it deserves. Unlocking jobs, opportunities and growth'.[240] The Kings speech for the new government included a number of railway bills to give effect to the manifesto commitments (which are not the subject of this report). No promises in relation to a possible reinstatement of HS2 northern leg to Manchester, cancelled by the Conservative government, have been given.

These proposals are therefore relatively modest - though there's no doubt that they will offer city region mayors and local authorities much more scope to progressively improve local public/active transport networks, such as Greater Manchester's 'Bee Network' - and do not follow through on Labour's fanfared promise to 'accelerate the building of critical infrastructure for … transport' - *see Q18 above*. So to what extent will these rail and bus proposals be able to make a significant contribution to transport decarbonisation? In July 2023's *Clean Energy Superpower* - taking forward their climate 'mission' - Labour seems to want to suggest that improved public transport would also be sufficient to achieve substantial transport decarbonisation: 'To deliver net zero, it is essential to decarbonise transport. Labour will secure an efficient, integrated and affordable transport system that reduces carbon emissions and drives economic growth across our country. We will work with devolved governments and local authorities to promote good public transport across the nation to cut emissions. We want a world-class green public transport network, playing its part to help meet our net zero ambitions.'[241]

That briefing also promised that 'Labour will set out more of our plans to tackle emissions in every sector of the economy … ahead of the next general election'. Now *Labour's plan to fix Britain's railways* includes s a significant statement: 'While rail may only represent a small proportion of overall transport emissions, it has the potential to play a large part in the solution to decarbonising our transport sector by attracting more people onto our railways and making greater use of rail freight. **Labour will set targets for modal shift to lower emissions from the transport sector'.** Making public transport more reliable and attractive could, it says, 'result in huge reductions in emissions from journeys' *emphasis added*.[242] The example is given that 'if drivers could be persuaded to switch just one 30-mile car journey a month to rail, then total emissions from all cars could be reduced by 6.5%.' Using the assumptions provided[243], this represents an annual reduction of around

1.6 billion out of a total of 645 billion vehicle passenger kilometres or 0.25%, suggesting that the validity of this modal shift example in terms of carbon impact may be exaggerated.[244]

What form such a Labour modal shift target would take, and how it would be implemented - such that its potential decarbonisation contribution could be quantified - is as yet not specified.[245] But the Scottish government produced a 'route map to achieve a 20% reduction in car kilometres by 2030' in January 2022 which sets out their detailed proposed implementation approach.[246] This received a strong endorsement from the campaigning organisation Transform Scotland who however commented that 'However it will be hugely challenging to reverse the decades of uncontrolled car usage. Reducing car kms by 20% by 2030 will require deep political commitment at all levels. It will necessitate the implementation of a radical set of policies at a swift pace, which in itself is a radical change from the procrastination that has characterised the past couple of decades.' Transforms premonitions turned out to be acute *see Q45*

The 2021 Wales transport strategy included a priority about managing travel demand and bringing services to people in order to reduce the need to travel. As part of that it made a commitment 'to move people away from using their cars to walking and cycling and to use public transport' with the local shares of the latter increasing from the current 32% share to 45% by 2040. Consequently 'we will need to increase our investment in these areas'.[247]

And does Labour have available independent quantitative analysis to support the view that a strong focus on public transport will deliver the quantity of carbon reduction required by 2030? Certainly the historic trends for bus and rail travel, compared to car, are not favourable. Since 1980 the number of local bus passenger journeys in England (outside London) in 1980 has almost halved (and the declines in Scotland and Wales have been even steeper); the exception being patronage in London, where the franchising model has generated increases. The number of rail journeys had risen to a plateau by the 2010s, but collectively public transport's modal share of travel demand is little over 10%. By contrast, the passenger kilometres driven by cars/vans/taxis had increased from 140 billion in 1960 to an all-time high of 740bn in pre-Covid 2019.[248]

Presumably for these reasons the CCC 6th Carbon Budget report had low expectations for the amount of modal shift from car to public transport: 'Our scenarios assume that between 2-4% of car-kilometres by 2030 can be switched, increasing to 5-8% by 2050'; as a result the effect of some shifts to public transport would be 'a reduction in demand of 7-16% of total car-kilometres in 2030'.[249] Transport for Quality of Life has done two studies about what is the potential for public transport to reduce the demand for road travel. Their detailed study for the TUC analyses all the mechanics required to achieve a 20% reduction in car mileage, to be delivered by a combination of a reduction in journeys undertaken and modal shift to public transport.[250] However, this comes at a very considerable cost [251] and the study doesn't actually identify the potential emissions reduction that might be achieved. Their study for the Welsh government *Carbon savings from public transport improvements in Wales* does put a number on the potential emissions reductions that might result: some 14% of all car CO2 by 2030. But to achieve that would require an approximately fivefold increase in public transport use.[252]

Q42 With expenditure constraints and competing demands between rail and roads, will there be sufficient capital funding available for public transport and decarbonisation?

Consistent with Labour's highest 'economic growth' priority there would be a strong rationale for increasing public and active transport investment which strengthens cities, particularly outside the

South East. A recent Centre for Cities report has demonstrated that cities outside London and in the North have poor commuting rates compared to european counterparts, diminishing labour market access and productivity, whilst the last decade has seen a continuation of the collapse in bus services and patronage that began in the 1980s.[253] The recent National Infrastructure Assessment recommended improving public transport networks in four major regional cities (Birmingham, Bristol, Leeds and Manchester) in pursuit of increased productivity and agglomeration benefits.[254] This approach to infrastructure investment and service improvements would therefore fulfil both economic and decarbonisation objectives. The question remains to be argued out both within the DfT and with the Treasury: how do you pay for such urban network improvements when they are also competing against major interurban rail schemes and roads schemes, SRN and local?

In his 4th December speech to the Resolution Foundation, Sir Keir Starmer talked realistically about the prospects for public expenditure under a next Labour government. 'Anyone who expects an incoming Labour government to quickly turn on the spending taps is going to be disappointed'. Decisions taken by the current government 'will constrain what a future Labour government can do',

These statements have a decidedly mixed message for a transport sector where very expensive commitments have already been made, with shadow Secretary of State Louise Haigh committing in her 11th October conference speech to 'deliver a credible and transformative programme of transport infrastructure including Northern Powerhouse Rail within our fiscal rules', although it's no longer clear what the scope and total cost of NPR might be when even the Liverpool-Manchester section of the East-West line has been spoken of as costing £20bn, and where at the moment there is no agreed route plan.[255] In this situation surely it can't be possible for the Transport Secretary, when undertaking her immediate review of the transport infrastructure portfolio, to be able to determine whether or not any proposals for major investment in northern East-West rail improvements can be funded alongside and in competition with a continuing substantial roads programme. As we've already noted in Q20 then the headroom available for Labour to fulfil its public transport pledges will be effectively be closed. Labour's ability to transfer revenue resources towards public and active transport will be limited by a cut imposed on the DfT revenue budget of 30% in 2024/25.[256]

What the case study for Wales indicates is that the public transport route to UK decarbonisation will be expensive, and so far has not been costed; it may therefore be out of reach in the medium term. Many of the measures that act only indirectly, such as land use planning and 'destination shifting' require a long time to take effect and can prove elusive. If this approach has been the principal hope of some Labour policymakers they would need to widen their options to include an alternative least or low-cost methods to achieve accelerated decarbonisation, principally by revising the underlying policy frameworks *Q55*.

Q43 Will Labour be able to spend enough on active transport?

A study undertaken by TQL about the economic/employment benefits to the UK cycle industry if it were able to grow so as to contribute to decarbonisation targets calculated that UK cycling trips would need to increase by 390% by 2030 (from a 2019 baseline) and distance cycled by 690%. As a result bike mode share could increase from 1.7% to around 4-7% by 2030, which would reduce the need for more onerous restraints on car travel and has significant public health benefits. In a separate exercise Chris Boardman, head of Active Travel England (ATE), says the country would need up to £18bn to grow cycling equitably between rural and urban areas, against a current pot of up to £3.8bn. ATE has been tasked with meeting the target that half of all journeys in towns and cities are

made by cycling and walking by 2030.[257] Whether we're talking about volume of trips or expenditure, these are challenging targets to be met in just a few years.

The current background is that the Conservative government In March 2023 cut two-thirds of England's dedicated funding for walking, wheeling and cycling at the same time as it published its Carbon Budget Delivery Plan which showed that the UK is set to miss its 2030 carbonisation target. The campaigning organisation Transport Action Network submitted a judicial review of the funding decision and its contradiction with climate targets. TAN commented on the judicial hearing on 30th April : 'The dark hand of the Treasury & No 10 was exposed in court, demanding cuts to active travel funding without considering impacts.'[258] As already noted *Q42* revenue funding for the Department for transport has been substantially reduced for the 2024-25 financial year . So how would Labour be able to fund its public & active transport solutions needed to deliver this particular route to decarbonisation? Whilst the commitment of new Transport Secretary Louise Haigh to this specific area of transport provision is very welcome - active travel will be 'utterly essential to developing our national integrated transport' - her comment on 20th August that 'Labour investment in cycling and walking will be unprecedented' merely increases still further the difficulty of reconciling the competing pressures for infrastructure investment between roads, rail and sustainable transport.[259]

Climate Risk+Policy Frameworks Regardless of the policy scenario selected for implementation this will not reduce climate risk to the extent required in the short/medium term. CCC has low expectations for the amount of modal switch from car to public transport; bus networks outside London have been experiencing long-term decline.
Implications for Labour Currently Labour seems to be suggesting that sufficient carbon reduction can be achieved mainly through improved public transport. Attempted decarbonisation by this route could be extremely expensive.

Decarbonisation Implementation 'down through the levels'

Q44 How should transport decarbonisation be organised and implemented 'down through the levels'?

Carbon reduction from transport is uniquely complicated because travel crosses jurisdictional boundaries, within and external to the UK. So if action across all levels isn't coordinated within an implementation framework specifically designed to align strategies and programmes, then it can be predicted that transport carbon reduction will be delayed or fail.

What did the July 2021's Transport Decarbonisation Plan say about how the process of carbon reduction down through the levels of regional and local authorities should be organised? It did at least appear to recognise the existence of this critical implementation question: 'Having quantified plans in place will ensure that every place understands the level of ambition required to reduce emissions and ensure that this ambition can be translated into action.'[260] The urgency of transport decarbonisation therefore required the TDP process to quickly think through what might be the new 'wiring diagram' that would get all the levels of transport planning - UK government, the governments of Scotland & Wales, the 7 English subnational transport bodies[261], combined authorities and counties, and finally local councils - working together in via coordination and funding mechanisms.

But more than 2 years later what the DfT simply hasn't done is review and reorganise the process by which those 'quantified plans' in 'every place' are interlocking with each other. An academic analysis

of the existing framework has concluded that it's dysfunctional: 'In the absence of a clear framework beneath the national level, the response is piecemeal and incoherent.'[262] This failing can only have reinforced the situation where decarbonisation in the major northern urban centres has stalled over the last decade *see Q2*.

The question of how many of the TDP's multiple commitments have actually been implemented, will be reviewed shortly *see Q49* but the implication is that this is yet another problem that will fall to the next Labour government to grapple with, recognising that redesigning and bedding in a new approach to governance and funding can take years. Has Labour yet started to think about what should be that new 'national to local' decarbonisation implementation framework?

Q45 What are the Scottish and Welsh governments doing to pursue transport decarbonisation?

The Scottish government commissioned Element Energy to research detailed policy scenarios to take forward commitments in its 2020 Climate Plan including a 20% reduction in traffic levels by 2030, and this study also throws light on the interaction between the UK and the Devolved Administrations levels of transport governance. It starts by recognising that 'the level of climate ambition between Scotland and the UK as a whole are not equal', particularly relating to the very different levels of emission reductions to be achieved by the key date of 2030. This arises from 'the cumulative nature of CO2 build up in the atmosphere [which] makes early carbon reductions much more important in reducing the impacts of climate change than later emission reductions made in the 2030s and 2040s'.

Its assessment is that whilst TDP scenarios might deliver a reduction of between 5-40% in total transport emissions 1990-2030, but with a central scenario of -20%, the Scottish research - which is proposing a 56% reduction - requires 'much greater ambition in technology and behavioural change policy, but especially in behavioural change policy as the opportunity to significantly shift the technology of whole fleets in 2030 is rapidly closing.'[263]

The transport strategy of the Welsh government states that it 'will deliver a significant reduction in greenhouse gas emissions from transport by reducing demand, supporting low-carbon services and infrastructure and through modal shift' in line with the CCC recommendations, a balance of responses which again is significantly different from that of the UK government.[264]

Strategies are one thing but they can be overruled or overturned by changes in political direction. We have already noted in Q18 how the Wales roads review seems to have been pushed to the margins in the recent change in leadership there. In Scotland, where the government is not Labour but SNP (over recent years also supported by the Green Party) the campaigning organisation Transform Scotland has criticised funding decisions on transport for apparently going back on commitments to switch funds from new roadbuilding to public transport - including a decision to accelerate spending on A9 dualling, cancelling the Bus Partnership Fund, and failing to meet their commitment to devote 10% of transport spending to active travel - which Transform then connect to the decision by the Scottish government on 18th April 2024 to abandon Scotland's 2030 climate change target.[265]

Q46 What are the English subnational transport bodies doing to coordinate decarbonisation in their regions?

Subnational transport bodies (STBs) were legislated for under the 2016 Local Government and Cities Devolution Act, which gave them responsibility to prepare a transport strategy for their wider region; to date however only Transport for the North has been statutorily designated, with the other six STBs left in a state of limbo by the DfT.[266] Transport for London has its own powers.

The Transport Decarbonisation Plan said that 'We also want to facilitate collaboration between areas … and cross regional work led by Sub-National Transport Bodies' and that 'STBs can support the Government's decarbonisation objectives by joining up local plans across a wider geography, to capitalise on economies of scale and ensure coherence across local authority borders.' 2 years on, what's been achieved in practice?

Working together the STBs have demonstrated an enthusiasm around decarbonisation but just one - Transport for the North - has worked its way systematically through the issues in the shape of an actual decarbonisation strategy (December 2021); now decarbonisation is one of the 3 strategic missions of TfN's revised Strategic Transport Plan.[267] Transport for the SE undertook a detailed carbon assessment (November 2020).[268] Both of these reached the stage of quantifying and modelling decarbonisation scenario pathways to scope out how their possible approaches fitted with the scale of decarbonisation required. Others have incorporated decarbonisation assessments within their strategic transport plans; for example Midlands Connect has gone on to prepare a 'decarbonisation policy toolkit' which explores decarbonisation strategies and how to create evidence-based and data-driven Local Transport Plans (June 2023). But it notes: 'the timeframe is relatively short considering the magnitude of the behaviour change required.'[269]

The question for Labour would be: what coordinating and expert role can the STBs undertake to galvanise transport decarbonisation across England, mediating upwards to a turbocharged national policy framework above and downwards to the combined and local authorities below? The process and practice of Transport for the North provides a positive case study for this role but it can only take effect within a redesigned national governance framework for transport decarbonisation. Extending the TfN template to the other STBs will first require that they all be put on a statutory footing. This should be part of the same legislative process as is taking forward the English Devolution Bill.

Q47 Where is the instruction book for how local councils should undertake transport decarbonisation?

We noted *Q2* how combined and local authorities across the North (and no doubt nationally) have also failed in the previous decade to actually implement transport carbon reduction. The TDP said 'We will drive decarbonisation and transport improvements at a local level by making quantifiable carbon reductions a fundamental part of local transport planning and funding'. It promised a revival of Local Transport Plans, which will need 'to set out how local areas will deliver ambitious quantifiable carbon reductions in transport, taking into account the differing transport requirements of different areas. This will need to be in line with carbon budgets and net zero.'[270]

But, two and a half years later, that instruction book for LTPs has still not been provided. In May 2023, after comments were made in Parliament, it was promised that a consultation on the new LTP guidance would be published 'soon after the local elections' with a view to having the final guidance in place 'by the end of the year'.[271] And then, in Spring 2024 it emerged that the much delayed LTP guidance had in fact been cancelled, but with no explanation as to why. In its 2024 Progress Report CCC reinforced the need for this guidance to be provided.[272] Assuming that the next government

(the Minister responsible for Local Transport is Simon Lightwood MP for Wakefield & Rothwell) acts promptly on this recommendation - to provide local implementation guidance and frameworks as to how to deliver transport decarbonisation, it still won't be in place until sometime in 2025.

Q48 How successful have Labour local authorities been in implementing transport decarbonisation?

This question needs to be immediately qualified. Labour combined authorities and local councils in the North of England, and beyond, are certainly committed to the principle of reducing carbon emissions from transport; they have strategies setting out how they plan to do this, and many will have implemented measures to improve public and active transport to the extent that resources permit.

But do these same intentions also apply to regional & local roadbuilding programmes, constraining road traffic growth, and then to opposing airport expansion? Detailed experience by ETOs organisations in the northern regions has shown that there is little understanding by policy makers about the process by which carbon assessments of proposed new roads schemes should be applied to approval decisions. Over a wider canvas it's been noted that in 2020 some 18 councils who had declared a 'climate emergency' had also allocated more than £20 million each from their own resources to build new roads. This is additional to DfT funding. They are Shropshire, Warrington, Coventry, Plymouth, Liverpool, Leicestershire County Council, Norfolk, Kent, York, Hampshire, Stoke-on-Trent, Devon, Wiltshire, Lincolnshire, Lancashire, Cambridgeshire and Peterborough, Essex and Wokingham. The list of 100+schemes assessed at that time involved potential expenditure of around £7bn but only 17.5% was funded locally implying that it's the role of national policy that is determinative of the extent of local roadbuilding.[273] As we seen *Q32* some Labour metro mayors remain supporters of airport expansion for reasons that are disconnected from the Climate Change Committee analysis.[274]

Decarbonisation Delivery Risk

Q49 How much of the Transport Decarbonisation Plan has been successfully delivered since its publication 3 years ago?

Whilst the Transport Decarbonisation Plan listed no fewer than 78 'commitments' in its opening pages, of all different shapes and sizes, what it didn't define, with adequate technical apparatus, is how successful decarbonisation would be measured and monitored. It stated very generally that 'we will regularly review progress against our targets, continue to adapt and take further action if needed to decarbonise transport. We will publish our progress and review our pathway at least every five years'.[275] But there was no accompanying monitoring framework, or a connection across to the extended delivery monitoring framework established by the CCC in 2021[276], as updated in its annual progress reports to Parliament, which attempt to measure the size of the transport decarbonisation 'policy gap'.

In July 2022's TDP 'One Year On' progress report, it turns out that the DfT are effectively 'marking their own homework', with assertions such as 'we've made huge progress, and have already delivered many of [the TDP's] ambitious commitments'.[277] Most of the report consists, mode by mode, of matching pairs of 'in the past year we have …' and 'next we plan to …' statements about actions X, Y and Z which have been taken but which are not accompanied by demonstrations of how

these translate to quantified emissions reductions, in fulfilment of an established decarbonisation pathway, or a percentage closing of the policy gap.

By deliberately not creating a monitoring framework capable of being scrutinised independently, an understanding of whether decarbonisation is being implemented effectively or not has been undermined. That's simply not known. And because no equivalent report to 'One Year On' was published in July 2023, there has also been no engagement with the delivery risk issues revealed by the most recent CCC Progress Report, or as revealed in the Carbon Budget Delivery Plan.

Q50 What is the extent of the 'delivery risk' to transport decarbonisation has already been identified?

'Delivery risk' is the risk of not keeping up with the required precipitous descent down the transport decarbonisation emissions pathway - its CO2 tonnage reductions, annual timescales and fast approaching 2030 milestone - that is exacting precisely because of the accumulation of unresolved problems described by the previous questions in this report. It is indeed a walk down a tightrope: a fall from which is potentially calamitous for the UK carbon budget. This is bound to be the occasion for legal challenge by citizens and campaigners rightly exercised by inadequate progress with decarbonising the UK's largest emissions sector.

The Climate Change Committee CCC 2023 Progress report is full of warnings about the delivery risk associated with all three transport areas[278]:

● **Surface transport**: the risks relate to the emissions pathway as a whole ('delaying deployment', 'squeezing regulatory development timelines', 'reducing the ability for policies to push for greater ambition', a technology-dependent pathway 'likely to be less cost-effective and entails higher delivery risk' [279] and specifically relating to travel demand[280], EV uptake[281] and road pricing.[282]

●) **Aviation**: the risks relate to the Jet Zero Strategy overall[283], its interaction with the UK carbon budget[284], and because of its over-reliance on technological 'solutions'.[285]

● **Shipping**: CCC identifies significant risks for the CB6 period 2033-37 but not before.[286]

The government response to these strategy-level concerns about increasing delivery risk is generally to simply reassert the approach that CCC has just criticised.[287] The DfT has refused to make public the detailed implementation programmes and assumptions, whilst the Government withholds vital risk data on the overall Carbon Budget Delivery Plan which would allow external stakeholders, including opposition parties, to know the true risks to policy delivery.[288]

This was the situation relating to 'delivery risk' **before** the successful judicial review of the government's Carbon Budget Delivery Plan secured by Friends of the Earth, Client Earth and the Good Law Project on 3rd May 2024. For good reasons this report will not attempt an interpretation of the implications of the judgement but it does seem possible to assert that it has elevated the issue of 'delivery risk' to a central position. Justice Sheldon followed Holgate in asserting that it 'was common ground between the parties that … one obviously material consideration which the Secretary of State must take into account is risk to the delivery of individual proposals and policies *[the language of CCA S.13]* and to the achievement of the carbon budgets and the 2050 net zero target.' He concluded that 'the Secretary of State had no way of knowing which proposals and policies might not be delivered, or delivered in full; he could not calculate therefore what "over-

delivery" was required from the other quantified proposals and policies, and whether those other quantified proposals and policies would meet the shortfall.'[289]

The judgement also revealed that there already is an agreed allocation across government – 'effort share' - of the quantity of emissions reductions required to be delivered by individual departments via their policy frameworks; something not previously known.[290] The documentation so far made available relating to risk measurement by departments unfortunately does not cover the Department for Transport but it can be seen that they do identify the likelihood of non/delivery at the level of individual policies.[291] That information should be made publicly available; if it was it would almost certainly start a progressive exposing of the credibility of the DfT's overall roads and aviation policy stances.

Q51 When will we know whether and how Labour intends to tackle transport decarbonisation delivery risk?

In the *Clean Energy Superpower* mission statement it affirms that: '**Ahead of the next General Election**, Labour will set out more of our plans to tackle emissions in every sector of the economy to accelerate to net zero - from homes and buildings, to **transport**, agriculture, industry and business.'[292] *emphasis added.* But with now probably less than 6 months to go before the election, nothing is yet known about the timescales and methodology of this promised process. It's entirely reasonable to ask that those be revealed, at least in outline, by a future party of government. It's sometimes argued that the reason why Labour has not been forthcoming as to its transport decarbonisation intentions or planning is that, as a party still in opposition and under relentless political and media scrutiny as the pre-election campaigning increases in momentum, it simply does not have the policy making resources to allocate to thinking through the huge complexity of the transport decarbonisation task, for example as described by this report. But potential contenders for power also engage in 'access talks' - an opportunity, the Institute for Government says, 'to hold confidential talks with the civil service about their plans the government' - in this case with the permanent secretary of the Department for Transport.[293] The window for those talks opened in January[294] and from then on it is a relatively straightforward process for a party such as Labour to make a proposition to DfT officials such as: 'our objectives for transport decarbonisation are XYZ and we would like the Department for Transport to develop proposals as to how to analyse, organise, fund and deliver that programme across the next Parliament'.

Of course the more ambitious the objectives XYZ are, the more difficult their achievement will be but, again, it's the purpose of the access talks to allow the civil service the space in advance to think through those problems and work up options for consideration on Day 1 such as: 'X should be possible, X+Y will be much more difficult, and X+Y+Z will almost certainly require two terms to secure but at least we can make a start in 2025 **if** we make changes of policy direction ABC from the outset.' If Labour were to use the DfT access talks in this way, it would be able to overcome what is claimed to be their expertise gap. It's customary never to reveal the content of these conversations or even that they've taken place but it can be seen just from these paragraphs that the critical prerequisite for the success of this process would be that 'Labour's knowledge about and ambition for transport decarbonisation problem are commensurate to its recognition of the scale of that problem'. Which is why public statements which communicate that basic awareness would be reassuring. Their absence however continues to be troubling.

Another essential issue Labour should feed into the access talks, in the light of the recent Net Zero II judgement, would be to ask for a demonstration as to whether the DfT's principal decarbonisation

policy frameworks - the Transport Decarbonisation Plan itself, the National Networks national policy statement + RIS, and the Jet Zero Strategy - are compatible with Net Zero (for example as assessed by the Climate Change Committee) and lawful.

Q52 What is the risk to the overall UK carbon budget from a failure to accelerate transport decarbonisation?

Buried within technical appendices and annexes to the March 2023 Carbon Budget Delivery Plan (CBDP) the government has itself identified changes and then risks to transport emissions pathways of sufficient scale to adversely impact the UK carbon budget as a whole. Moreover these risks have only been broadly described, and not properly risk assessed, on a quantitative, policy by policy basis, and it was this that led to the second FOE legal challenge, recently concluded in their favour.

The CBDP technical annex reported adjustments to its overall UK emissions baseline, that is the pathway before any proposed policy interventions are considered. It reported that the pathways to 2037 for three emissions sectors are all now performing better by a cumulative tonnage of 109MtCO2e, but that is more than offset by a 130MtCO2e deterioration in the surface transport pathway. The government attributed this to the discovery that plug-in hybrid EVs are '3-5 times more polluting in the real world than in test drives', and an uplift in the traffic projections for vans and HGVs.[295]

In CBDP Appendix D *Sectoral summaries of delivery confidence* the government noted that for road transport 'a principal risk is that the regulation and incentives we are putting in place are insufficient to drive the transition to zero emission vehicles at the speed required to enable carbon budgets to be met.' Three broad, high-level risks are described: insufficient regulation and incentives to drive the transition to zero emission vehicles at the speed required to enable carbon budgets to be met; unanticipated growth in transport demand, going beyond 'our high-end Projections'; and reliance on nascent or immature technologies and associated markets, such as zero emission vehicle or flight technologies or utilisation of lower carbon fuels.[296] The same requirements to adequately assess the decarbonisation delivery risk emerging from individual proposed new roads schemes also apply.[297]

However these broad risk statements are abstract and unquantified, and were a central feature in both original and then the renewed legal challenges successfully brought against the government's NZ strategy. As Justice Holgate found in July 2022: '… *the ability to meet the statutory targets depends upon the contributions made by a multiplicity of proposals and policies adopted by the Secretary of State. This is obviously material to the risk of delivery. It is critical to any assessment by Parliament, and by the public, of how the statutory targets are likely to be met, by what means and with what implications.'*[298]

It follows that a Labour government would also need to demonstrate how it has responded to the CCC assessment of the extent to which existing policies satisfactorily reduce or manage the delivery risk it (CCC) has identified, and then whether any government proposals responding to those concerns have themselves been assessed for risk. CCC 2024 Progress once again gave some specific warnings about delivery risks in critical areas: 'electric cars' market share … has fallen off track for the first time. … There is therefore a risk that the ZEV mandate's targets may not be met in the early years'.[299]

Q53 What would Labour's Net Zero & Energy Security department, responsible for overall NZ delivery, do if an inadequate transport decarbonisation pathway threatens the UK

carbon budget?

The matters raised in this report o not just concern the shadow transport ministerial team and their policymakers. They are probably even more central to the Energy Security & Net Zero teams for reasons that encompass overall delivery, technical management of pathways, lawfulness and political integrity. The implications of the Net Zero II judgement are yet to be crystallised but will involve a testing of the relationship between **the increased climate risk generated by transport policy** and the requirement for a next Labour government to produce a lawful NZS, and also a determination of whether the current unlawful position of the CBDP **renders components of the transport infrastructure process unworkable** until a revised NZS is found to be lawful after May 2025.

The dominance of the transport emissions sector within the UK carbon budget *see Qs1-3* means that the successful preparation of plans and policies for its reduction will have to be a key concern also for NZ&ES shadow secretary Ed Miliband and his team. They will also need to be convinced that any emissions reductions shortfalls emerging early in the next government as a result of inadequate policy interventions proposed or adopted by the DfT ministerial team are capable of being identified and responded to so that the integrity of the both the transport and UK decarbonisation pathways can be maintained. The potential for shortfall within the transport pathway is already apparent in view of the number of recommendations, effectively warnings, from the Climate Change Committee – to explicitly reject any net expansions in airport capacity, and requesting that the roads programme be reviewed because it's being pushed forward without proper account for its carbon implications - which the DfT have simply brushed aside.

In that situation Labour in government would be confronted by the starkest of political dilemmas: either to accept and implement Climate Change Committee recommendations to tighten policy in order to constrain the pathway, or reject these and thus effectively repudiate the Climate Change Act on the watch of the politician that originally introduced it in 2008 – Ed Miliband. How would it be possible for Energy Security & Net Zero Secretary Ed Miliband to accept decisions by fellow Cabinet members to contravene this advice?

This might be thought to be a theoretical or 'political' argument, but it's now a very real legal issue as well that cannot be avoided. It arises from the multiple claims for judicial review now being prepared or brought, not just by Friends of the Earth - as a result of their successful second JR challenge of the Conservative government carbon budget delivery plan, decided on 3rd May 2024 and which sets a deadline of 2nd May 2025 for the Labour government to submit a lawful CBDP - but also by Possible and GALBA in respect of the Jet Zero Strategy and climate (& airport expansion in the case of the latter), and Transport Action Network in respect of the revised National Networks NPS.[300] All of these legal challenges derive from the central features of DfT transport policy in relation to decarbonisation, as summarised in the Executive Summary to this report and as demonstrated by the unarguable quantification of transport's ever increasing share of the UK carbon budget as a whole. If that cannot be constrained - essentially by revising or removing the roads and aviation policy frameworks that are the embedded drivers behind failed transport decarbonisation - then ES&NZ secretary Miliband will not be able to demonstrate in court in 2025 that the government **has** been able to prepare a lawful CBDP incorporating manageable delivery risks.

The outcome of these 'embedded drivers' are ultimately reflected in the inadequate downward reduction of the transport decarbonisation emissions pathway but they also lie much deeper within the DfT policy frameworks. Even if ES&NZ Secretary Miliband and Transport Secretary Haigh were to

agree a common starting point - that the current aggregated pathway is unsustainable - then this would only be the start of the difficulties Labour will be confronted with. For example, if they were to establish that the pathways delivery risks cannot be managed, they would then find that their ability to get back to the pathway would be limited by the tools within the regulatory toolbox available to transport ministers and the government as a whole. As we've seen, those levers have either been ripped out (aviation see Q37) or have not been subject even to initial development within government (such as the mechanisms to constrain travel demand: Qs14-15).

By the time that such an 'off pathway' problem was discovered or disclosed, even tightening policy in order to deliver the **existing** (government or CCC) pathway may not be sufficient. With every passing year 'off pathway' for the country's largest emissions sector - and with the available UK carbon budget having been consequently eroded still further *for example see Q25-26* - it might become necessary at some point in the period 2025-30 to have to contemplate redrawing the transport decarbonisation pathways further should circumstances require it. In other words by increasing the cross government 'effort share' allocated specifically to transport?[301] This possibility needs to be assessed as part of the process of preparing a revised CBDP that the ES&NZ Department will now be organising.

That process should undertaken in partnership with the Climate Change Committee and might have come about because of the situation explained in Q3 which noted that the total transport emissions pathway is a composite of two quite different and divergent trajectories (road and aviation, with the latter at present being proposed by policy to achieve no reductions whatsoever from the CCA 1990 baseline even by the 2050 NZ end year). That far too lenient approach to aviation has its origins within the very first CCC analysis of the issue in 2009 and has since become entrenched.[302]

In terms of equity this is quite the wrong way round: surface transport, by public or private vehicles, is used on a daily basis by millions of people. Aviation on the other hand is not used by the majority of the population even once in a single year, but principally by a small minority of wealthier individuals. This suggests that Labour should revisit how the CCC aviation emissions pathway has been derived - in order to potentially tighten it, thus creating either more emissions space for surface transport, or a larger buffer against the risk of present and future implementation shortfalls across all emissions sectors - particularly since the Committee itself seems to be dissatisfied with how the favourable treatment accorded to aviation has been exploited by the industry and DfT policymakers alike.

This potential for such a disorderly and politically disruptive implementation of the transport decarbonisation pathway should have been the responsibility of Labour policymakers and shadow transport ministers to have thought through the possibility of this scenario emerging before they get into government. That didn't happen but now another opportunity to do this presents itself in the shape of Transport Secretary Haigh's 'new long-term strategy for transport.' Crucial to that will be the question of whether the policy frameworks for roads, aviation and transport decarbonisation as a whole are 'fit for purpose'. And also capable of withstanding future legal challenge.

Q54 Has Labour yet reviewed whether 2021's Transport Decarbonisation Plan - the DfT's fundamental policy framework for carbon reduction - is 'fit for purpose'?

In opposition then shadow Energy Security & NZ Secretary of State Ed Miliband repeatedly lambasted Conservative governments for failing to deliver decarbonisation targets; in March stated that Labour were 'committed to scrutinising all of our policy agenda as part of the climate Mission';

and finally on 18th July in Parliament confirmed that the government is working towards the NDC - 68% by 2030 target. CCC 2024 Progress notes that IAS emissions are excluded from the NDC target but on 2nd August Miliband wrote to CCC asking for their advice as to whether they should now be included. [303] This is a positive development and shows that the ES&NZ Secretary is indeed fully aware of such technical details.

In the circumstance where transport is the largest emissions sector and with 70% of the government's decarbonisation 'policy gaps' *Q3*, Labour's transport policymakers should have started their work in the pre-election period by assessing whether the TDP and its daughter frameworks are actually 'fit for purpose'. It would be difficult to believe that an incoming Labour transport ministerial team could begin its work without first testing whether the department's principal policy frameworks affecting decarbonisation are indeed 'fit for purpose'. If Labour hasn't prepared for this assessment before government so that it can be immediately commanded within their 1st 100 Days, won't the subsequent transport decarbonisation delivery over the crucial next Parliament to 2030 be largely compromised?

Looked at more broadly both the Institute for government and WWF have written, from slightly different perspectives, about the concept of a 'net zero test' - to ensure that departmental policies and ministerial decisions are compatible with long-term climate commitments - being instituted across government.[304] Even though the individual roads and aviation policy frameworks are *sui generis* to an extent, the process of assessing their 'fitness' would be streamlined because they would principally be being tested for just one criteria: **are they compatible with delivering an accelerated decarbonisation pathway, with certainty?** That does imply a prior assumption as to what should be the slope of the pathway, for example because of the need to include non-CO2 emissions in the aviation pathway from which up to now they have been excluded. An essential collaborative partner in the review would be the Climate Change Committee whose legislated role is to be trusted guardian of pathways and independent adviser to the government.

Climate Risk Tackling this is not being supported by the ..
Policy Frameworks The TDP does not provide a delivery plan, governance arrangements for decarbonisation implementation 'down through the levels', or a monitoring & accountability framework.
Implications for Labour Labour will need to design and quickly introduce a new 'wiring diagram' to deliver decarbonisation targets with additional ambition & certainty. Otherwise it too will face legal challenges as the Conservative government has.

'If policy frameworks have failed, change them!'

It's taken all these questions - just one more to go! - to bring together the evidence and analysis about the two modes, **roads** and **aviation**, that are the cause of the UK's transport decarbonisation problem and which ordinarily are examined and campaigned about entirely separately from each other, in modal 'silos'. The thought was that, collectively, these questions would illuminate the **relationship** between **climate risk** and a small number of underlying transport **policy frameworks**. Specifically: is climate risk over the next 5 years likely to reduce or increase because of action to be taken by a Labour government. And will existing or intended policy frameworks contribute to transport decarbonisation or exacerbating it? We've provided a brief commentary at the end of each section about **Climate Risk** and **Policy Frameworks** So what's the assessment for the report as a whole?

Q55 How should the transport policy frameworks be revised and made compatible with Net Zero?

Those policy frameworks, which a next Labour government will inherit, are: the **National Road Traffic Projections**, the **National Networks national planning statement**, the **Roads Investment Strategies**, the **Jet Zero Strategy** (and associated documents), the **Airports NPS**, and ultimately the **Transport Decarbonisation Plan** itself. There are also other indirectly related frameworks of which the most important are the **National Planning Policy Framework** (NPPF), and the **Regional/Local Transport Implementation Framework**.

The report has demonstrated that the policy frameworks governing roads and aviation modes have failed in their most important purpose of all: to **reduce climate risk and to organise and accelerate transport decarbonisation**; a failure which it might be concluded has contributed to a significant extent to UK's overall NZ Strategy being found unlawful. In fact and over decades these two frameworks have actually promoted an increase in carbon emissions, either absolutely, or relative to the requirement of the Climate Change Act that a transport carbon pathway should make the necessary contribution to a constantly diminishing UK carbon budget as it reduces to Net Zero. It follows that **this structural failure affecting the CCA will continue as long as these underlying policy frameworks remain in place and unrevised**.

● The **Roads policy framework**: Whilst some components of climate risk within this framework have been mitigated by confirmed policy for the transition to EVs, other elements remain unmitigated because of its failure to provide Net Zero-compliant future traffic projections; to adequately constrain travel demand and future road emissions across broad policy so that these are coherently NZ-compliant; and ensure proper assessment and challenge of the carbon emissions of new infrastructure schemes. In consequence an excessive forward roads investment programme continues to be promoted, at great financial cost – excessive that is to the extent that it breaches the carbon envelope.

The **Aviation policy framework**: The Jet Zero Strategy is deliberately incurring multiple unacceptable climate risks because of its irresponsible design: encompassing 'timeframe' risk (relating to both disregarded global climate trigger points, and delayed monitoring reviews); its 'reliance on undeveloped technology' risk; and therefore the associated delivery risk; the 'failure to provide positive incentive curves to drive technological interventions within policy' risk, allowing industries to access growth and reward only if they have already secured an exacting emissions pathway; its 'absence of regulatory levers' risk; its failure to 'canvas demand management' risk; its 'exclusion of non-CO2' risk; and its 'failure to assess and balance social/economic dis/benefits' risk. This amounts to increasing climate security and food supply (in relation to SAFs) risks for those that will never fly at all (globally) or fly very infrequently (UK) in order that a minority of wealthier UK citizens can fly excessively mostly for discretionary leisure purposes.

The **Transport Decarbonisation Plan** framework: Situated above both these 'subordinate' policy frameworks, the TDP is responsible for all their specific risks and then for a series of overarching risks of its own: the 'deception' risk incurred by reinserting roads and aviation policy stances which inflate climate risk within the top-level decarbonisation framework ostensibly purposed with reducing it!; the 'unquantified cumulative emissions' risk, carelessly omitted from the DfT problem analysis; the 'sole focus on technological solutions' risk, to the exclusion of a wide range of other policy options; the 'continued deployment of the *de minimus* mechanisms' risk, preventing independent scrutiny and challenge; the 'absence of a redesigned delivery framework' risk, leaving the decarbonisation task down through subordinate implementation tiers without direction and urgency; a parallel risk created by the absence of an implementation framework for the TDP itself; a

'delayed monitoring' risk, preventing early warning bells being sounded about future pathway shortfalls; and a 'dismantling of regulatory levers' risk, hampering or removing the ability of decision-makers to respond to all these other risks should they become aware of them.

The previous question *Q54* asked whether Labour has gone through formal process of assessing the 'fitness for purpose' of such frameworks and therefore whether they can continue in situ. Some, like the Jet Zero Strategy, are so flawed in their design and intention that resetting their objective to accelerated decarbonisation will require the entire policy approach to be remade. For others like the existing/draft National Networks NPS, revision - that is, so as to remove the impediments to decarbonisation - would require simply the substitution of paragraphs 3.6-3.8 and 5.16-19 (2014 edition) so as to now include mechanisms which do allow the assessment and independent challenge of properly quantified carbon impacts. Frameworks that have a pervasive relationship to transport decarbonisation like the spatial planning framework (NPPF) would require specific changes in both content and the prioritisation that needs to be increased on driving carbon reduction.

From this review would emerge not just **the quantified total transport emissions pathway to 2030** and beyond that the next government must steer all its policy formation towards attaining but also a **mode by mode distribution of the carbon reductions** each will have to deliver. This would be reflected in an enhanced emissions 'effort share' allocated to transport and the DfT. Getting the transport pathway on track will ensure that, at last, transport high emitting modes make a sufficiently sized contribution to the decarbonisation required by the UK carbon budget as a whole.

Methodologically undertaking such a frameworks review has two strong advantages. Instead of being confronted by the apparently innumerable problems contained within the report's individual 55 questions, the choice for Labour policymakers would then become much simpler: as an essential first stage in preparing for government - replace the Net Zero dysfunctional policy frameworks with versions specifically designed to minimise climate risk and accelerate transport decarbonisation. After that planning a transport transformation requiring two administrations to complete could really begin.

The second advantage weighs the comparative benefit of pursuing a 'frameworks review' approach to decarbonisation to the alternatives. The report has shortly demonstrated that, confronted with unprecedented pressures on public expenditure, a review and revision of the role of a limited number of little known transport policy frameworks would be the **least expensive**, the **least controversial**, the **most effective**, and the **most certain** way of getting and keeping the critical transport decarbonisation pathway on track, and consequently securing a lawful government. In a situation where a policy focus on individual implementation interventions which can generate controversy and anxieties (as ULEZ did), and characterised by acute financial constraints, there's a lot to be said for such characteristics. Also - in the light of the Net Zero II judgement - does a future government have much choice but to review these frameworks?

By the midway point of the 60 year Net Zero period transport emissions should have approximately halved, like UK emissions as a whole. But they HAVEN'T. Instead DfT have exploited the opportunity within the drafting of the Climate Change Act - that its reduction requirements apply only to the UK carbon budget as a whole and not individual emissions sectors – to ignore the Act's decarbonisation imperative such that, at the midpoint, there had been NO reduction against 1990 for road emissions, whilst aviation emissions have been aggressively promoted in completely the opposite direction. This position will continue unless the next Labour government radically revises the complicit policy frameworks handed over to them like so many poisoned chalices: the Transport Decarbonisation Plan, the National Networks NPS, Jet Zero Strategy, and quite a few more**.**

Themes from this analysis *spotlighting the **policy choices** that Labour must engage with right now .*[305]

1 Above all, it's clear that **the Net Zero transport decarbonisation pathway across the period of a next Labour government is now threatened**. However Labour has not publicly acknowledged the scale of this threat and how they intend to respond to it. Unless that response is prepared for in advance of government it will not be possible for Labour to announce (e.g in its 'First 100 Days') the pronounced change of policy direction required to prevent the transport decarbonisation pathway slipping further out of reach in subsequent years to 2030.

2 That possibility will become immediately visible in government because of **decisions already taken or imminent to promote continuing expansion of roads and aviation***.* The existing policy frameworks probably would not permit transport ministers to reject several airport expansion proposals even if they wished to, and the Conservative government may have contractually committed major new road capacity schemes (which, again, Labour might actually support).

3 Labour will be confronted by the starkest of political dilemmas: **either to accept and implement Climate Change Committee recommendations, or reject these and thus effectively repudiate the Climate Change Act** on the watch of the politician that originally introduced it in 2008 – Ed Miliband. CCC are now explicitly rejecting any net expansions in airport capacity, and states that the roads programme has to be reviewed because it's being pushed forward without proper account for its carbon implications. How would it be possible for NZ Secretary Ed Miliband to accept decisions by fellow Cabinet members to contravene this advice?

4 At present Labour is also **ignoring the Net Zero delivery risks** to the transport pathway that have already been discovered and could **now potentially be challenged in the courts***.* In the last two years there has been a crescendo of legal challenges to shortfalls in the Conservative government's NZ strategy. Labour should be under no illusion that this will continue, particularly since the evidence is that transport is responsible for 70% of the UK policy gaps.

5 All this is happening because there are **structural flaws in the underlying DfT roads and aviation policy frameworks -** and the Transport Decarbonisation Plan itself - which are not applying mechanisms to constrain travel demand, or sending pricing signals via taxation, in order to reduce BAU emissions. As a result the DfT continues to promote road capacity expansion incompatible with Net Zero, whilst there are in practice no policy controls over aviation emissions. It follows that delivering transport emissions reduction **can only be achieved if these frameworks are radically revised to make them NZ compatible**. Similar revisions to the national planning policy framework (NPPF) and the national>regional>local implementation framework will have to be made because these are also essential for transport decarbonisation.

6 The alternative 'decarbonisation' approach proposed by DfT **- by 'techno-fixes' alone -** towards which Labour is already being drawn, will simply **not** be sufficient. Over the next decade only the transition to EVs will make a significant contribution to transport emissions reduction. As it happens, near-term demand management of aviation would actually assist technological innovation by allowing more time for its development. **Both technological interventions and travel demand constraint are necessary**.

7 The root cause of this situation is that, within Labour, there are **unresolved tensions and competing priorities within its overarching election strategy** which are acting to undermine transport decarbonisation. An apparent binary choice is being put forward - 'economic growth' versus 'critical decarbonisation' - whereas these two priorities instead need to be integrated into one single sustainable solution. Other unresolved tensions include the choice between 'new additional infrastructure' versus 'more effective use of existing infrastructure, via demand management', and the competition for limited capital funding between rail & road.

THESE might be the reasons why **Labour has not disclosed its position on transport decarbonisation!** In its pre-election planning and policy development it has not been able to unravel these complexities and contradictions - so is afraid to disclose their existence to public view - or maybe doesn't yet recognise that they exist.

Issues & choices for Labour: a 'Call to action'

This report has presented the analysis underlying the compelling case for a next Labour government to take urgent action to accelerate transport decarbonisation, by reviewing and revising the policy frameworks that continue to push carbon emissions from roads and aviation upwards. *See the summary box on the previous page.* What should Labour do **now**, in the pre-election period, in order to substantiate its claim to be the next party of government?

Of course, this analysis could be disputed but at the moment a first response to the question *Will Labour fail its transport decarbonisation test?* would be: '**We don't know**' because so far Labour hasn't disclosed its intentions on this most important issue for government. If its policymakers, and the shadow transport ministerial team, want to present an alternative and equally detailed quantified analysis, that would certainly be a major advance. Another response would be: is it Labour's intention to disclose what are its transport decarbonisation intentions before the electorate casts their vote? *Q52* After all, the briefing that launched the Labour 'climate' mission in June 2023 did say: 'Ahead of the next General Election, Labour will set out more of our plans to tackle emissions in every sector of the economy to accelerate to net zero [including] transport'.

So far, that commitment has not been fulfilled. Peering through the fog (or is it a smokescreen) it's not possible to say either that Labour might know the answer to the 'transport decarbonisation question' but has chosen not to disclose it, or alternatively that it does not know it or even that the question itself exists. Then it's a conventional wisdom, even amongst campaigners, that in the pre-election period Labour will not or even *should* not make specific proposals which could contribute to transport decarbonisation because these will attract attacks from political opponents and their media allies, thus jeopardising electoral support. But that argument does not have substance, for one simple reason. The approach of this report has been **very deliberately not to propose** particular solutions or interventions to the multitude of problems it has assessed. Not as a tactical manoeuvre to evade such criticism but because it follows from essential methodology: that it would be premature or indeed back to front.

So, as a 'call to action' arising from this report, it's suggested that deriving an answer to the 'transport decarbonisation test' question has to be a **two stage process** , and one based in **scenario development**:

Stage 1 in the *pre*-election period and *before* government: **developing a comprehensive transport decarbonisation analysis**, of the type set out in this report, leading on to scenario development. *See the scenario approach in the appendix* In this process particular attention should be paid to assessing: ● the sets of issues within the separate roads emissions sector (Q5-20) and the aviation emissions sector (Q 21-35). ● how their pathways, when interacted, can make a full contribution - for the first time! - to the relentless rate of reduction required for the UK carbon budget pathway as it rushes towards its critical 2030 milestones. ● a range of implementation scenarios which explore options and timescales at various spatial levels, how those can optimise broader sustainable development or Labour 'mission' objectives, whilst minimising delivery risk. This is a task of special complexity.

The results of this Stage 1 process at could then be considered in a number of locations. It could be submitted into the access talks with civil servants *see Q52* to allow that formal process to begin to think through what major policy options and scenarios in government might be, and how those interact with other departmental areas, other emissions sectors, and the 5 Labour 'missions'. At the same time Labour stakeholders - the shadow ministerial team, its national policymakers, its MPs

(and PPCs) , city region mayors (and their teams), county and local leaders could assess and discuss what might be answers from their perspective to the questions in this report. It's only when stage 1 has been undertaken that it's possible coherently to proceed to …

Stage 2 in the *post* election period and when *in* government: the **construction of more detailed policy scenarios and intervention options** that could form the building blocks of mode by mode burden sharing towards a specified and quantified carbon reduction pathway, and finally programmes of interventions. This would constitute a coherent transport decarbonisation scenario capable of being implemented over 2 administrations. Sequentially therefore the consideration of specific interventions is best conducted after a general election - and beyond the period of pre-election risk - and not before.

This methodology has a further advantage. It's the opposite of 'developing transport strategy based on a list of schemes', often assembled on the basis that it will benefit particular areas or interests, as all governments can engage in. A credible transport programme for government, driven by a quantifiable decarbonisation objectives, **cannot** be derived from programmes of specific modal interventions - such as that hastily compiled by the Conservative government for the Network North announcement in October 2023, rightly derided by shadow Secretary of State Louise Haigh.[306] - Why? Because, when aggregated as part of an attempted retrospective justification, they simply won't shift the emissions 'dial'. An examination of the methodology now required to secure the government's adoption of a programme of proposals and policies meeting the requirements of CCA section 13, without incurring challengeable delivery risk, demonstrates conclusively how that won't work. Nor will a predominant focus on public and active transport either.

Another reason is to stave off the inevitable legal challenge will follow if, from the off, Labour's transport decarbonisation strategy is not relentlessly directed towards eliminating climate risk and delivery risk. A further reason, connected to establishing a mandate for the sort of behavioural change that transport decarbonisation will require. At the moment Labour has a commanding lead in the opinion polls which, if it were to be replicated at the General Election, would result in a very large majority, bringing with it the opportunity to tackle unprecedented climate problems. [307] But what if the Labour election manifesto contained no references, however generalised, to the transport decarbonisation issue and consequently could also not command a mandate? Labour in government would be in the contradictory position of being in power across the critical next 5 years in the second half of the 2020s but without a programme for change in response. A final reason would be for 'the avoidance of doubt'. In the absence of any adequate pronouncements campaigners would be naïve to not include the possibility that, in office, Labour's approach to transport decarbonisation might actually mirror that of the Conservative government: for example by supporting a large roads programme, or continuing to allow aviation expansion to proceed unchecked.

[August update : On 29th July Transport Secretary Louise Haigh stated her intention to develop a new 'long-term strategy for transport'. The suggested approach in the last pages of this report perfectly complement that intention. Our view, as expressed in the conclusions on page 7, is that the strategy: must have decarbonisation objectives at its heart; contain policy frameworks for all modes which are explicitly compatible with NZ; and be built from transparent scenarios, and a modelled and accelerated emissions trajectory. It should be prepared in conjunction with the Climate Change Committee, and in compliance with its recommendations. That will ensure that the strategy is prepared so that it has anticipated the need for transport to make an increased decarbonisation contribution to CCC's proposals for Carbon Budget 7 2038-42 to be published in spring 2025.]

~ AS said at the start of this report, it's a given that the Conservatives have already <u>failed</u> their 'Transport Decarbonisation Test', which is why the question is now directed towards the alternative party of government.

~ BUT so far Labour hasn't said what it's going to do about the major causes of transport carbon emissions: roads and aviation.

~ IF Labour thinks that a transport decarbonisation effort focused on public transport is going to achieve the scale of carbon reduction required, then that's mistaken.

~ SO if the policy frameworks this report has singled out as the causes of the UK's transport emissions problem are left in place by Labour, then they will continue to drive emissions in the wrong direction, incurring ever increasing climate risk.

~ THAT climate risk is global and accelerating. How the next British government responds to its own transport decarbonisation challenge will have impacts around the world

~ CAN Labour pass its transport decarbonisation test? Yes it could, although to attempt it will be extraordinarily challenging.

~ But <u>WILL it</u>? That is for the Labour Party, its shadow transport and climate ministers, its many policy and decision makers, and stakeholders, to now address.*

*

~ And there are others and experts able to assist in that exploration[308]

Appendix 1

Developing a Labour transport decarbonisation scenario

It turns out that asking the initial question posed on this report's cover - *Will Labour fail its transport decarbonisation test?* - spills out into a jigsaw puzzle of many complicatedly shaped pieces - the report's Questions - that somehow need to be fitted together to create an overall coherence. To assemble this puzzle, can **a decarbonisation scenario** be used to help reconcile the major forces and tensions competing within it?

The report has already cited a number of studies where scenarios have been used in effective transport strategy development: the TfN future travel scenarios underpinning their decarbonisation modelling and strategy[309]; the use of these same scenarios to explore 'the tools and techniques that will be needed to identify land use and transport planning priorities in support of demand reduction' in Greater Manchester (see endnote141); and then the Chatham House report scenarios re-evaluating the DfT Jet Zero Strategy scenarios.[310] The Greener Vision organisation reviewed technical approaches to developing decarbonisation scenarios.[311]

Our report has, more generally, suggested that policy development by a next Labour government should follow a two stage approach with scenario development integral to both: Stage 1 in the *pre*-election period and *before* government: developing a comprehensive transport decarbonisation analysis leading on to **scenario development**; followed by Stage 2 in the *post* election period and when *in* government: the **construction of more detailed policy scenarios and intervention options**. Those could form the building blocks of mode by mode burden sharing towards a specified and quantified carbon reduction pathway, and finally programmes of interventions. This is the opposite of transport programme announcements that are based around a list of schemes or interventions, which cannot be appropriate because they have not been selected on the basis of their quantified decarbonisation potential.

In order to broaden the design of such a process, the following factors would need to be encompassed.

●The process would need to start with a strong statement of political **leadership & commitment towards the objective of reducing carbon pathway delivery risk**. The statement would be made public in post-election stage 2.

● a new approach to paying for and incentivising carbon reduction, so that **costs and responsibilities are allocated on 'polluter pays' principles** to industries and users rather than the first call being on scarce capital and revenue public expenditure.

● That reallocation of costs should be **designed to ensure a socially and economically just transition**, so that the fares for the tens of millions of people using sustainable bus and train travel every day are reduced whilst those for air travel predominantly by wealthy frequent flyers are increased.

● It should embrace the **principle of partnership working** An example of government and private sector partners acting positively together is the commitment of UK and EU vehicle manufacturers to invest billions in the decisive shift to EVs and charging networks within the certain framework created by the government's Zero Emissions Vehicle (ZEV) mandate.[312] This partnership approach is one Labour is already committed to with its automotive sector deal announced at its October conference.

The following is a statement - incorporating selected criteria of 'cost', 'public acceptance', 'equity', 'polluter pays', and 'accelerated decarbonisation' - which could be used to initiate such a scenario design process.

The next government must **find an *Implementation Scenario* for transport decarbonisation that ● *Cost* can be delivered with reduced public expenditure and with value for money ● *Public Acceptability* be the occasion of less direct and public controversy ● *Equity* recognises the need for fairness in the distribution between recipients of benefits v. disbenefits ● *Polluter Pays* whilst allocating responsibility for major action to those actors principally responsible for continuing, or even upward, emissions ●** and yet ***Accelerated Decarbonisation*** **has an immediate impact upon the fundamental transport carbon reduction pathways into the future, such that at minimum they comply with Climate Change Committee requirements.**

The assessment of this Analysis Report has led to a conclusion that the existing core policy frameworks discussed are not compatible with Net Zero and therefore have to be revised. What would be the impact of proceeding in this way on the five scenario criteria? A preliminary scoping suggests that it would be strongly positive, as well as politically and financially deliverable.

Cost: Public funding at present allocated to the major programme of new roads schemes struggling to demonstrate value for money in terms of a credible BCR could instead be allocated to improved maintenance of the existing road network, or to public/active transport and interventions delivering demand management and decarbonisation. The latter purposes are more popular, and socially and economically beneficial, than the former. The flow of funding could be increased if the reform of motoring and aviation taxation was undertaken, which in any case is essential and inevitable.

Public Acceptance: Revising or withdrawing policy frameworks which almost all of the UK population have never heard of will not be the source of public discontent. Indeed ensuring that such frameworks were instead to be made fully compatible with Net Zero would be a public reassurance. This is not a frivolous argument! As this report has demonstrated, these frameworks have already manifestly failed to direct UK transport policy incrementally and effectively towards decarbonisation. They cannot continue in place without exacerbating risks to the UK carbon budget that are already visible; they should be replaced by revised versions identifying the future economic and industrial benefits to be obtained by the NZ transition. They would be accompanied by revisions to the planning framework (NPPF), and to the regional & local implementation frameworks in order to accelerate delivery and remove the locational tensions within spatial planning.

Equity: Replacing an approach that responds to road travel demand by using 'demand management' rather than 'increasing capacity' is not inherently beneficial/disbeneficial to one or other user groups. That turns on the particular design and objectives of the chosen intervention, something which is well understood within existing discussion about potential road pricing[313], and which needs bipartisan debate around both national and local schemes tackling air pollution or congestion. For aviation, disbenefits arising from a cap on passenger demand and airport capacity would be felt by a small minority of wealthy frequent flyers. Disbenefits would not be incurred by: business travellers whose use of air travel is declining; people that take an annual holiday flight (who are already catered for within existing levels of demand, and for which there is already sufficient capacity); and half of the UK population that does not use this transport mode at all in any one year.

Polluter Pays: For roads the UK is already well down the road towards a successful transition to vehicle electrification, as important for industrial as for decarbonisation strategies. Road users and vehicle owners will pay an appropriate price, as they must, to buy into EVs' lower whole-life costs and better performance, and as assisted by government funded scrappage schemes. For aviation,

yes, there should be a technological transformation achieved by the introduction of sustainable aviation fuels and net zero aircraft as rapidly as whenever that becomes possible, but that will not be in the next decade (or decades). The cost of undertaking that technological transformation must be met by those creating and benefiting financially from the pollution - who at the moment have instead been provided with policy and fiscal incentives to increase both CO2/non-CO2 and cumulative emissions - and a small minority of frequent users. At a time when public expenditure is severely constrained it would be wholly unreasonable for that transition to be subsidised by the public purse and the vast majority of the UK population who are low/non-users.

Accelerated Decarbonisation: Within the existing transport decarbonisation pathways of both the government and CCC, transport has been the largest emissions sector since around 2015, and will continue to increase as a percentage of the UKCB unless it ramps up to an annual reduction rate compatible with that of an ever-diminishing carbon budget. In 2050 transport would still be the largest carbon emitter. The DfT has increasingly been ignoring specific recommendations from the CCC to become compliant with their required pathway. The TDP ignores the cumulative erosion of the UKCB of the annual emissions tonnages that it's meant to be constraining. In aviation the JZS ignores both the cumulative and non-CO2 emissions impacts. In consequence of all these, very substantial and always increasing climate risks are being incurred.

No doubt there could be other transport decarbonisation scenarios, with different components, and a different assessment of how the roads and aviation policy frameworks score within them. The above is simply one example to demonstrate the utility of this process.

Appendix 2

The 55 Questions

Q1 What is the scale of the current transport carbon emissions problem Labour would be confronted by in government?
2 The transport emissions pathway has flatlined over the previous decade, with no established track record of reductions
Q3 What is the future transport emissions pathway up to 2030 that a Labour government would have to deliver?
Q4 Transport is the emissions sector with the largest 'policy gap'
Q5 If actual transport emissions between 2025-30 turn out to be higher than they should be, are there 'levers' available to pull which will get the UK back on track?
Q6 In (pre-Covid) 2019, road transport emissions had not reduced at all from the 1990 baseline set by the Climate Change Act
Q7 What is the proposed decarbonisation pathway for road transport by the 2030 milestone and to the Net Zero 2050 end year?
Q8 What is the consequence of electric vehicle transition for the cost of motoring and forecast levels of road traffic?
Q9 Is there a need to constrain road travel demand in order to keep the transport decarbonisation pathway on track?
Q10 The government's Net Zero Strategy committed to a 40% reduction in surface transport emissions by 2030, but now that ambition has been substantially reduced
Q11 Seeing that the transition to EVs *and* constraint on car demand are both necessary, how can transport decarbonisation therefore be achieved?
Q12 The DfT continues to promote an EXPANSION in future road traffic levels

Q13 The DfT downplays or dismisses the established connection between new road building and additional traffic generation
Q14 The government has so far refused to examine even the possibility of road pricing as a tool to reduce congestion and emissions
Q15 Will Labour be able to deploy vehicle charges and taxation measures in support of transport decarbonisation?
Q16 What are the carbon impacts of the Roads Programme?
Q17 The roads policy framework actually prevents the carbon impact of new road schemes being assessed properly and challenged as they're being developed
Q18 What is Labour's proposed approach to new road building, and what is the rationale for infrastructure investment?
Q19 A huge programme of new roads schemes continues to be prepared without being constrained for its increased traffic and carbon emissions consequences
Q20 Many new road schemes being developed have very poor value for money so really shouldn't proceed
Q21 National policies encouraging road building and increased road traffic are often incompatible with local policies seeking to achieve the opposite and decarbonisation
Q22 Will Labour also need to revise the spatial planning framework in order to deliver transport decarbonisation?
Q23 At the halfway point of the 60 year Net Zero period (1990-2050) aviation carbon emissions have actually INCREASED by +125%
Q24 The DfT policy intention, post Covid, is that aviation should be allowed to increase its emissions by 2030 back to +69% ABOVE the 1990 baseline
Q25 In 2050 aviation carbon emissions will still be HIGHER than they were in 1990.
Q26 Then: aviation's NON-carbon climate impacts are even LARGER than its carbon emissions
Q27 Aviation's cumulative climate impacts have also been excluded from the Jet Zero Strategy policy framework
Q28 Just 15% of passengers - the wealthy 'frequent flyers' - take 70% of all UK flights
Q29 More than 80% of air travel is for discretionary leisure, and business travel is an ever reducing proportion
Q30 The UK already has more airport capacity than it needs to meet sustainable levels of demand all the way to 2050
Q31 There are now multiple proposals for airport expansion, some already approved
Q32 Continuing airport and aviation expansion flouts the Climate Change Committee recommendation that this is incompatible with the UK Net Zero target?
Q33 What is Labour's proposed approach to aviation and airports policy?
Q34 Will Labour be able to deploy taxation measures as part of its toolbox to constrain aviation emissions?
Q35 Applying a moratorium just to 'airport growth' - defined as no more new *runways* - will not stop further aviation emissions expansion?
Q36 The aviation policy framework effectively prevents any challenge to airport and aviation expansion on climate grounds?
Q37 The Jet Zero Strategy removes all regulatory controls over airport capacity, passenger demand, and emissions growth?
Q38 The Jet Zero Strategy only proposes technology-based solutions which cannot be effective for decades; constraining rising demand is specifically excluded
Q39 Reviews of whether the Jet Zero Strategy is actually reducing aviation emissions are scheduled only every 5 years, starting in 2027

Q40 There is an increasing risk that aviation decarbonisation won't be achieved, with serious consequences for the UK carbon budget and millions of businesses & households
Q41 How much decarbonisation can be achieved by improvements in public transport?
Q42 With expenditure constraints and competing demands between rail and roads, will there be sufficient capital funding available for public transport and decarbonisation?
Q43 Will Labour be able to spend enough on active transport?
Q44 How should transport decarbonisation be organised and implemented 'down through the levels'?
Q45 What are the Scottish and Welsh governments doing to pursue transport decarbonisation?
Q46 What are the English subnational transport bodies doing to coordinate decarbonisation in their regions?
Q47 Where is the instruction book for how local councils should undertake transport decarbonisation?
Q48 How successful have Labour local authorities been in implementing transport decarbonisation?
Q49 How much of the Transport Decarbonisation Plan has been successfully delivered since its publication 3 years ago?
Q50 What is the extent of the 'delivery risk' to transport decarbonisation that has already been identified?
Q51 When will we know whether and how Labour intends to tackle transport decarbonisation delivery risk?
Q52 What is the risk to the overall UK carbon budget from a failure to accelerate transport decarbonisation?
Q53 What would Labour's Net Zero & Energy Security department, responsible for overall NZ delivery, do if an inadequate transport decarbonisation pathway threatens the UK carbon budget?
Q54 Has Labour yet reviewed whether 2021's Transport Decarbonisation Plan - the DfT's fundamental policy framework for carbon reduction - is 'fit for purpose'?
Q55 How should the transport policy frameworks be revised and made compatible with Net Zero?

End Notes

You can download a separate copy of the Endnotes here to allow you to switch easily between the Report and the Notes

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[1] Institute for public policy research/IPPR May 2024 *Moving together* report (and see also https://www.ippr.org/media-office/richest-0-1-in-britain-emit-12-times-more-greenhouse-gases-from-transport-than-average-person); Green Alliance blog 11th July 2024 *Will the government's transport reforms be the key enabler Louise Haigh wants*

[2] See *Local Transport Today* editions 896 and 897 with multiple articles about the intended BFM infrastructure review process; the newly created office value for money; the NAO reviews of national highways schemes and also the defining quality of the road network; and delays to the Juergen Maier review of rail and urban networks commissioned by Labour in January but still not published. The latter, now due to be published in September, could add to huge cost of ensuring that English regional rail and city wide transit networks move closer to the standards already available in London, and already stated ambition for the Greater Manchester 'Bee' network.

[3] 10th July www.gov.uk/government/news/transport-secretary-sets-out-5-key-priorities-to-deliver-the-biggest-overhaul-to-transport-in-a-generation; 18th July https://x.com/LouHaigh/status/1813860996081205494

[4] Ibid 896 And Our department is so clearly central to achieving the [PM] missions for government rowth, net zero, … none of these can be realised without transport as a key enabler."

[5] (Hansard 30 July https://hansard.parliament.uk/commons/2024-07-30/debates/24073046000018/TransportInfrastructure

[6] *after 6th September 2023* Shadow Secretary of State: Louise Haigh, MP - Sheffield Heeley; shadow Roads Minister: *2023* Bill Esterson MP- Sefton; shadow Aviation & Maritime Minister: Mike Kane, MP - Manchester Wythenshawe & Sale East; and Shadow Buses & Taxis Minister Simon Lightwood, MP - Wakefield. The remaining MP shadow minister, for railways, was Stephen Morgan, MP - Portsmouth South,
After 6th July 2024 Transport Secretary of State: Louise Haigh; 'Future of Roads' Minister: Lillian Greenwood MP- Nottingham South; Aviation & Maritime Minister: Mike Kane; Local Transport Minister Simon Lightwood. The remaining minister, for rail, is Lord Peter Hendy - Wikipedia listing

[7] Labour Party National Policy Forum June 2023, page 17

[8] There are two other reasons why Labour should in general be prioritising decarbonisation, and particularly for transport. Firstly Net Zero is popular, including with red wall voters. See here for September 2023 polling: 'an overwhelming majority (64%) of Red Wall voters, including 61% of likely Conservative voters, would vote *to commit* the United Kingdom to reducing the country's carbon emissions to Net Zero by 2050'. Secondly, it's the 'law of the land' that the UK successfully implements NZ by 2050, whether it's popular or not; in which case the challenge becomes how to make it popular.

[9] quotation from *Reverse Gear: the reality and implications of national transport emission reduction policies* May 2023

[10] https://twitter.com/LouHaigh/status/1699525515835478156

[11] https://www.transportxtra.com/publications/local-transport-today/news/75927/-dangerously-inadequate-decarbonisation

[12] www.theguardian.com/politics/article/2024/aug/20/labour-investment-cycling-walking-unprecedented-louise-haigh

[13] Prime Minister Sunak announced on 27th September that the government had delayed its previous commitment to phase out the purchase of new fossil fuel cars, from 2030 to 2035. This was the 'headline', probably for public consumption, whilst at the same time the introduction of the ZEV mandate, whereby by 2030 80% of new vehicles sold had to be EVs, was reaffirmed. Combined the net positive impact is +85MtCo2e over the period of CB5 (information from Green Alliance) At the same time a 'long-term plan to back drivers' was published . On 3rd October the PM announced the cancellation of the Northern leg of HS2 between Birmingham-Manchester, and its substitution instead by 'Network North' which allocated the £36b

to a large range of alternative, mostly northern and public transport projects. However on examination Transport Action Network pointed out that this had 'redirected over a third of the HS2 budget, £12bn', into road building'. TAN commented that 'by increasing the DfT funding contribution for local authority roads, from 85% to 100%, this could unleash a tsunami of damaging road building costing £9bn or more, making a total roads spend of over £20bn enabled by cutting HS2'.

[14] Labour's 4th Mission *Making Britain a clean energy superpower* page 21 'Ahead of the next General Election, Labour will set out more of our plans to tackle emissions in every sector of the economy to accelerate to net zero - from homes and buildings, to **transport**, agriculture, industry and business'. See also the statement in 2022's 'Green and Digital future', and Louise Haigh's speeches to the 2022 party conference. and 2023 conference.

[15] On 25 April Labour has also indicated that it 'will set targets for modal shift [in order] to lower emissions'

[16] Sir Keir Starmer conference speech 10th October: https://labour.org.uk/updates/press-releases/keir-starmers-speech-at-labour-conference; speech to NE Chamber of Commerce 3rd November: https://labour.org.uk/updates/press-releases/keir-starmers-speech-to-the-north-east-chamber-of-commerce. By the time of Sir Keir's Resolution Foundation speech on 4th December the words were: 'we must bulldoze through restrictive planning laws. We must remove the blockages that choke the supply-side of our economy'. His apparent support for the UK's largest road building scheme, the Lower Thames Crossing, got a repeat mention in his response to the Kings speech 7th November: 'An ambition that can only be delivered, if we roll up our sleeves and get building. At the moment, just to get a tunnel built in this country, can require a planning application 30 times longer than the complete works of Shakespeare.' For detailed discussion on this issue see Q18 in the report.

[17] https://www.legislation.gov.uk/ukpga/2008/27/contents

[18] Final Greenhouse Gas Emissions national statistics 2022 tabs 1.2+5.1

[19] Agriculture & land use emissions have also been flatlining since 1990 and will still have residual emissions in 2050, but the sector had only emissions one third the size of transport's in 1990 whilst food production/consumption probably merits a higher priority than predominantly leisure aviation travel.

[20] 2020 is the halfway point in the period to the Net Zero 'deadline' 1990-2050 but the Covid outbreak and lockdowns from spring 2020 precipitated a substantial and unexpected downturn in transport activity. Data from 2019 is therefore substituted.

[21] The historic and 2023 emissions tonnage numbers in Q1 are taken from CCC 2024 Progress Report dataset tables 1.1 row 13 and 1.3 rows 15/21/22; see also page 17 of the report. For a general discussion of the 2023 provisional emissions figures see Carbon Brief www.carbonbrief.org/analysis-uk-emissions-in-2023-fell-to-lowest-level-since-1879/

[22] For example Lord Deben, former chair CCC and now chair of the Council for Net Zero Transport: "Transport is one of the most challenging and complex sectors of the UK economy to decarbonise. It is also responsible for around a quarter of the country's greenhouse gas emissions.' 6 June 2024. In July 2021 *Carbon Brief* were misrepresenting the size of the transport emissions contribution: 'Transport is the UK's largest source of emissions, responsible for 27% of greenhouse gases in 2019'. However by March 2024 Carbon Brief had corrected that number: 'As of 2023, transport emissions were only around 10% below 1990 levels and made up nearly a third of the UK's overall total'.

The DfT is the ultimate source of such misreadings; see Transport Decarbonisation Plan page 15 'Transport is the largest contributor to UK domestic greenhouse gas (GHG) emissions, responsible for 27% in 2019. International aviation and shipping are not included in this figure. Domestic GHG emissions from transport have been broadly flat for the last 30 years, even as those of other sectors have declined'. Note that the last sentence is misleading because aviation sector emissions haven't 'declined' but experienced the largest increase above 1990 of any emissions sector.

[23] Compiled from this DNZES dataset 2022 edition, tab 1.2 columns AB and AT.

[24] Ralph Smyth's *The big challenges for transport from Labour's devolution plan* August 2024 substantiates this analysis and provides a detailed blueprint of the mechanisms by which the government's forthcoming English Devolution Bill could assist in local decarbonisation if specific powers are included in the Act.

[25] These percentage reductions apply to surface transport only. See Marsden & Anable 2021, page 5 *Behind the Targets? The Case for Coherence in a Multi-Scalar Approach to Carbon Action Plans in the Transport Sector*

[26] See Anthony Rae, April 2019 *The threat of rising carbon transport emissions to the Climate Change Act process*
[27] RAC Foundation Note that for 7 years from mid 2016, and that the rise in 'all motoring costs' only occurred from mid 2021 onwards as a result of the Ukraine
[28] https://policy.friendsoftheearth.uk/insight/how-britains-bus-services-have-drastically-declined . You can explore the reduction of bus services in your area using the postcode lookup facility
[2929] DfT Transport Decarbonisation Plan July 2021
[30] UK's Nationally Determined Contribution, updated September 2022; after the -68% 2030 target, the UK's emissions reductions must continue to -77% by 2035. The NDC target was accepted by Ed Miliband, Secretary of State for Energy Security & Net Secretary, Hansard 18th July 2024 col. 188-9. CCC 2024 Progress Report: dataset tab 1.1, rows 18/19 column AU; also 'Urgent action is needed to get on track for the UK's 2030 target' report page 8, and 'Although not covered by the NDC, emissions from international aviation and shipping must also be managed to meet future carbon budgets' page 24.
[31] CCC Carbon Budget 6 dataset December 2020 scenarios summary tab, rows 77/84/85. Net Zero Strategy dataset October 2021 tab 3v transport rows 43+44 and 85+86 central values;
[32] DfT July 2021 Transport Decarbonisation Plan figure 2, page 45
[33] Sources: row 4 CB6 report exhibits 'Advice Report Chs 1&2' tab rows 222-24; rows9-11 historic = 2020 Progress tab2.3 rows 8-10; future = CB6 rows 238/45/46
[34] See endnote 13 for the Conservative government delay to this phase-out until 2035, which however Labour pledged to restore back to 2030, as happened in their 2024 manifesto.
[35] DfT Jet Zero Strategy dataset 'high ambition' scenario
[36] CCC 2023 progress 108 'Policy progress over the past year has been slower than expected … This increases delivery risk across the sector, both by directly delaying deployment and by squeezing regulatory development timelines, reducing the ability for policies to push for greater ambition and leading key regulatory proposals to include more flexibility. The Government must now proceed with urgency to get plans in this key sector back on track'; and see figure 4.10 on p.122.
[37] *Ibid 278 '…*risks remain unaddressed… The required emissions reduction for the Sixth Carbon Budget period is therefore at significant risk; and see figure 10.9 on p.278
[38] *ibid* 292 'Policy development has been insufficient in the shipping sector as, without an update to the Clean Maritime Plan, there are currently no credible policies in place to meet the required emissions reduction by the Sixth Carbon Budget period'; and see figure 11.4 on p.292. However note that shipping emissions have been reducing steadily since 1990 and in pre-Covid 2019 at 13.3 MtCO2e had reduced by -20 % from that starting point; see figure 11.3.
[39] Green Alliance *Net Zero Policy Tracker March 2024 Update* pages 5 and 7.
[40] This results in a net positive improvement of 85 MtCO2e in the policy gap over the CB5 period: the delayed phase-out entailing a removal of 28MtCO2e from 'Ambition' to 'No policy', and the ZEV Mandate a 113MtCO2e move from 'Consultation' to 'Firm' (information from Green Alliance).
[41] Green Alliance Policy Tracker page 5
[42] https://friendsoftheearth.uk/climate/track-uk-breaking-its-2030-climate-promise
[43] *Introductory brief to Grant Shapps MP on becoming BEIS Secretary of State* 8th November 2022 'Transport is the largest share of emissions *[identified in November 2022 as 32%]*, with the biggest contribution from road transport. Reductions have been small, as vehicle efficiency improvements have been offset by growth in vehicle numbers and journeys. Emissions from the UK's share of international aviation more than doubled from 1990-2019. For shipping, emissions have stayed broadly flat.'
[44] Chatham House 2023 *Net Zero and the role of the aviation industry*.
[45] House of Commons Library *Decarbonisation: the impact of coronavirus on land transportation* September 2021 page 28
[46] https://www.transportxtra.com/publications/local-transport-today/news/73023/the-route-to-net-zero-dft-assumptions-look-well-off-course/
[47] UK final emissions dataset 2022 tab 1.2, rows 30-35
[48] CCC 2023 Progress page 116 figure 4.3

[49] UK provisional emissions 2023 tab 1.b, row 10. An appropriate adjustment has to be made to this figure because the provisional emissions tables do not break down UK domestic emissions by mode; also they display a -2.5Mt discrepancy compared to the same data category in the final emissions tables.
[50] CCC CB6 dataset surface transport tab row 291 balanced NZ pathway;NZS 2021 data set transport tab rows 43-44 central value; the 'reasonable adjustments' exclude rail/shipping/aviation from the domestic transport data
[51] DfT 3rd January 2024 ZEV Mandate
[52] DfT *The Road to Zero* page 5pdf
[53] 18th November 2020: www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030 This bringing forward was then reversed by the decision of Prime Minister Sunak on 27th September 2023 (see endnote 13 above), but Labour immediately confirmed that they would reinstate the 2030 deadline: www.fleetnews.co.uk/news/latest-fleet-news/electric-fleet-news/2023/09/22/labour-would-reinstate-fossil-fuel-new-car-sales-ban-from-2030 However that commitment was not included in Louise Haigh's 2023 conference 2023 speech.
[54] https://transportandenergy.com/2024/02/13/shadow-roads-minister-tells-recharge-uk-that-**labour**-will-reinstate-2030-ban-on-sale-of-new-petrol-and-diesel-cars/; Labour manifesto page 33.
[55] https://labour.org.uk/updates/press-releases/labour-reveals-first-of-industrial-strategy-sector-deals-with-plan-for-the-automotive-industry-to-create-80000-jobs/ 'The party's comprehensive plan, drafted in partnership with industry, addresses issues at every stage of production, from securing resilient supply chains and a skilled workforce, to supporting British manufacturing, to removing the barriers for consumers to transition and increase demand for electric vehicles.'
[56] See the extensive evidence submitted to the current Business & Trade select committee inquiry into Batteries for electric vehicles.
[57] CCC Surface Transport Sector Summary page 55 including Figure A3.1g page 55.The largest blue wedge, below the horizontal axis, represents the cost savings accruing to car and van owners.
[58] *Ibid* page 63 'Surface transport demand is forecast to increase by 10-20% from today's level by 2050'.
[59] *Ibid* Figure A3.1e page 52. See the comprehensive presentation of the ICE vehicle 'lag effect' on the slide at 7.30 minutes in https://www.youtube.com/watch?v=eUZ76hB6m-M by David Connolly, Director for Technical Development at Systra .
[60] *ibid* page 50 'Greater reductions in travel demand through a higher shift to lower-carbon travel modes, ride-sharing solutions or societal shifts would mean that fewer electric cars and vans would be needed, with corresponding savings on EV capital costs and in charging investment and running costs. '
[61] *Ibid* pages 63 and 70
[62] CCC *2023 Progress* pages 109, 113, the policy scorecard on page 127: 'Reducing car travel: no quantified abatement in the government's delivery pathway', then page 420: 'Conduct a systematic review of current and future road-building projects to assess their consistency with the Government's environmental goals. This should ensure that decisions do not lock in unsustainable levels of traffic growth and develop conditions (which can be included in the Roads Investment Strategy 3 process and beyond) that permit schemes to be taken forward only if they meaningfully support cost-effective delivery of Net Zero and climate adaptation.'
[63] NZS dataset tab3v
[64] CCC *2023 Progress* page 107
[65] CCC 2023 Progress page 113: 'Studies have shown that rising fuel prices, increases in home-working and implementation of low-traffic neighbourhoods have all contributed to this reduction in overall demand.'

[66] *ibid* p. 93: "Figure 4.10 is based on the revised quantified pathway presented in the Government's Carbon Budget Delivery Plan (CBDP), which is less ambitious than either the Net Zero Strategy or the CCC's Balanced Pathway'; and then 'The smaller emissions reduction embodied in the quantified policies and plans compared to the NZS comes predominantly from surface transport (Figure 3.13).'
[67] *ibid* p. 93
[68] *ibid* page 108
[69] Based on his analysis of the CBDP technical annex March 2023 paragraph 23 'Together, these adjustments [relating to surface transport] lead to an increase in baseline emissions of 4MtCO2e/year on average in the 4th Carbon Budget period, 9Mt/year for 5th Carbon Budget, and 13Mt/year in the 6th Carbon Budget period.'

This increase totals to 130MtCO2e over the carbon budget 4-6 periods. See Dr Andrew Boswell evidence submitted to the Lower Thames Crossing planning inquiry section 6.

[70] Marsden op cit *Reverse Gear: the reality and implications of national transport emission reduction policies* May 2023 page 10 and 20: 'The estimated carbon gap in ambition between the most and least ambitious lines in the TDP was 567 MtC over the period 2023–2037. The CBDP pathway for domestic transport is a cumulative total of around 411 MtC above the most ambitious pathway in the TDP. This corresponds to a closing off of around 72% of the ambitions set out in the TDP, a document produced less than two years previously. The proposed CBDP pathway is around 180 MtC above the Balanced Pathway set out by the CCC in the 6th Carbon Budget.'

[71] DfT July 2021 Transitioning to zero emission cars and vans: 2035 delivery plan

[72] TQL *The last chance saloon: we need to cut car mileage by at least 20%* December 2021. This summarised a range of possible percentage traffic reductions reflecting different local circumstances. 'The facts are that new cars are a small proportion of cars on the road, so it will take many years to replace all the ICE vehicles , and because the sale of plug-in hybrid cars and vans will continue until 2035, and it's now established that they reduce carbon emissions inadequately.' (see Q 12)

[73] CCC 2024 Progress page 17

[74] Green Alliance August 2021 *Not going the extra mile*

[75] Marsden op cit *Reverse Gear* page 34 "The analysis in this report is consistent with previous work (Hopkinson et al., 2021) which shows that the only pathways which align with the CCC's assessment of the necessary contribution from surface transport include a 20% traffic reduction by 2030, as set out in Scotland.' For the Scottish 20% target see Element Energy (2021) Decarbonising the Scottish Transport Sector. Report for the Scottish Government.

[76] CCC 2023 Progress page 109 'The Government has made no progress on our recommendations on clarifying the role for car demand reduction and ensuring that key enablers (road-building decisions and taxation) are aligned to delivering this'.

[77] Marsden op cit *Reverse Gear pages* 19-20: 'There is only one scenario which represents a future with no traffic growth, referred to as the behaviour change scenario. … Current traffic levels are already significantly above the levels anticipated in the behaviour change scenario projection … the Draft National Policy Statement for National Networks states that "continued absolute traffic growth is likely under all scenarios"

[78] TQL evidence to Transport Committee strategic roads investment nquiry, page 4: 'The CCC 6th Carbon Budget requires a 47% reduction in carbon emissions from surface transport between 2018 and 2030, while the eight NRTP scenarios predict carbon emissions from road transport over this period will fall by only 19-35%. The RIS2 programme will therefore add significant carbon emissions during a period in which surface transport emissions are not falling fast enough to be aligned with carbon budgets.' https://committees.parliament.uk/writtenevidence/117350/pdf/

[79] Transport Committee Strategic Road Investment July 2023 paras. 19-21

[80] DfT Draft National Policy Statement for National Networks. Consultation document para.3.3

[81] Prof Phil Goodwin & Lisa Hopkinson https://tapas.network/35/hopkinsongoodwin.php

[82] CCC *4th Carbon Budget* report 2010, page 335: 'These effects illustrate the need for fiscal rebalancing in the period to 2030. Given that UK roads are likely to become increasingly congested over time, one option which should be seriously considered is the introduction of road pricing, which would have environmental, economic and fiscal benefits.'

[83] https://committees.parliament.uk/publications/8754/documents/88692/default/

[84] https://committees.parliament.uk/publications/34225/documents/188339/default/

[85] https://www.bbc.co.uk/news/articles/c87r8gv3lkxo

[86] RAC Foundation transport price index and CCC 2023 progress figure 4.9

[87] House of Commons library *Taxation of road fuels* June 2022 . See section 4.2 'Discussion of longer-term pressures on fuel duty receipts: fuel efficiency and net zero'.

[88] https://www.smf.co.uk/revealed-cutting-fuel-duty-helps-the-rich-not-white-van-man/. And see www.theguardian.com/politics/2024/mar/06/uk-fuel-duty-cut-regressive-policy-benefits-wealthy-study 6th March 2024

[89] Transport & Environment *Reforming UK car taxation: How to tackle the influx oversized, highly polluting cars coming onto the UK's roads* February 2024

[90] Resolution Foundation June 2023 *Where the rubber hits the road;* and see https://x.com/LouHaigh/status/1810599677001191549
[91] https://www.independent.co.uk/news/uk/politics/keir-starmer-labour-sadiq-khan-ulez-b2392162.html
[92] Daily Mirror 3rd September 2023

[93] shadow Chancellor Rachel Reeves 9th October speech to Labour Party conference
[94] OBR *Economic and fiscal outlook March 2024* forecast methodology: 'The Government sets out policy assumptions for the uprating of fuel duty each year. Based on announced policy, petrol and diesel duty rates are set to rise by 5p (in March 2025) plus RPI inflation (in April 2025) and by RPI inflation every year thereafter.'
[95] Based on the principles set out in the National Networks NPS (2014) paragraphs 5.16-18. In terms of how those then translate to an approval of an individual road scheme approval, where the emissions from the proposed scheme are compared to the UK carbon budget as a whole, see e.g the decision letter for the A38 Derby Junctions project August 2023 para.124 *[extract]*: '…the magnitude of the increase in carbon emissions resulting from the Proposed Development is predicted to be a maximum of 0.00504% of any carbon budget and therefore very small ..' and '… 'The Secretary of State is satisfied that … the very small increase in emissions that will result from the Proposed Development can be managed within Government's overall strategy for meeting net zero and the relevant carbon budgets'.
[96] TQL *The carbon impacs of the national roads programme;* and see TQL evidence to the Transport SelectCcommittee inquiry into strategic road investment.
[97] https://transportactionnetwork.org.uk/campaign/climate-change/ris2-road-carbon/
[98] See the detailed briefings to Parliament provided by Transport Action Network: Commons and Lords (not yet available online). In the 8th May House of Lords debate Lord Berkeley proposed a motion questioning the NPS's compliance with net zero requirements. The motion was withdrawn at the end of the debate but it having been held just a few days after the Net Zero II judgement in favour of the friends of the Earth judicial review of the Carbon Budget Delivery Plan, it has now been questioned whether the revised NPS can be formally designated to succeed its 2014 predecessor without risking a judicial review itself. The implications of the situation are reviewed in paras.31-36 of the TAN Lord's briefing note.
[99] TAN NPS Lords briefing paragraphs 31-32
[100] Policy paper *Getting Great Britain building again: Speeding up infrastructure delivery* November 2023. See the wording in Energy NPS EN 1 para. 5.3.11 'Operational GHG emissions are a significant adverse impact from some types of energy infrastructure which cannot be totally avoided (even with full deployment of CCS technology). Given the characteristics of these and other technologies, as noted in Part 3 of this NPS, and the range of non-planning policies that can be used to decarbonise electricity generation, such as the UK ETS (see Section 2.4), *government has determined that operational GHG emissions are not reasons to prohibit the consenting of energy projects or to impose more restrictions on them in the planning policy framework than are set out in the energy NPSs (e.g. the CCR requirements)*' and 5.3.12 'Operational emissions will be addressed in a managed, economy-wide manner, to ensure consistency with carbon budgets, net zero and our international climate commitments. *The Secretary of State does not, therefore need to assess individual applications for planning consent against operational carbon emissions and their contribution to carbon budgets, net zero and our international climate commitments.'* Emphasis added
[101] Derived from the Latin tag that 'the law does not concern itself with trifles'.
[102] National Networks NPS 2014, paras 5.16-18
[103] National Networks NPS 2024: 'It would not be feasible or sensible for such an assessment [as to whether the UK has sufficient policies and proposals overall to meet the UK carbon budget] to be done at the time of taking individual development decisions, and there is no legal requirement to do so. *para.5.38* 'Given the range of non-planning policies aimed at decarbonising the transport system, government has determined that a net increase in operational carbon emissions is not, of itself, reason to prohibit the consenting of national network projects or to impose more restrictions on them in the planning policy framework. *5.41* 'Operational emissions will be addressed in a managed, economy-wide manner, to ensure consistency with carbon budgets, net zero and our international climate commitments. Therefore, approval of schemes with residual carbon emissions is allowable and can be consistent with meeting net zero.' *5.42*

[104] Transport Committee, October 2023 *Draft revised national policy statement for national networks* chapter 3; CCC 2023 Progress page 420.
[105] DfT *Government Response to the Transport Select Committee's Report on the draft revised National Networks National Policy Statement* March 2024 page 7: 'Given the action already being taken across the economy and transport to reduce emissions, some of which has been acknowledged in the revised NNNPS, we do not anticipate the need for further review of the NNNPS in light of the CCC's advice.'
[106] Reduced from the original £27.4bn to £24bn in 2021, of which £10.5bn is for new roads schemes (called 'enhancements') Transport Committee *Strategic road investment* report 2023 paras.40-42
[107] See endnote 99 for the Transport Action Network briefings; a Green Alliance briefing *Re-evaluating roadbuilding* February 2024 stated: 'The current NNNPS draft is based on traffic growth projections incompatible with meeting future carbon budgets, even with the current rate of electric vehicle uptake. Furthermore, the draft NNNPS guides decision makers inadequately in understanding the impact of road building within the context of reducing carbon emissions to net zero. This current draft should not be supported, instead it should be rewritten to bring the guidance in line with environmental targets.'

[108] https://policymogul.com/key-updates/33921/darren-jones-launches-labour-s-comprehensive-review-into-major-infrastructure-projects; and https://urbantransportgroup.org/rail-and-urban-transport-review The two ETOs submissions can be downloaded here: major infrastructure projects and urban transport; both focused on the issue of decarbonisation.

[109] www.gov.uk/government/news/lord-banner-kc-to-lead-review-on-national-infrastructure
[110] See Dr Steve Melia, Centre for Transport and Society*: Why Did UK Governments Cut Road Building in the 1990s and Expand it After 2010?* , and also Docherty & Shaw *The transformation of transport policy in Great Britain? 'New Realism' and New Labour's decade of displacement activity.*
[111] Guardian, December 2006: 'In July 2000, a 10-year transport plan set aside £59bn for new roads and promised widening of 360 miles of motorways and trunk roads, and 130 other major road improvement schemes. Four years later, the 2004 Future of Transport white paper concluded that, before 2025, a further 2,500 miles of road carriageway needed to be built, and that another £5.3bn would be needed for local roads.
[112] https://labour.org.uk/updates/press-releases/rachel-reeves-speech-at-labour-conference/ and https://labour.org.uk/updates/press-releases/reeves-working-people-will-be-better-off-with-labour/
[113] https://labour.org.uk/updates/press-releases/keir-starmers-speech-at-labour-conference There are aspects of NPS revision that will be beneficial for decarbonisation. The briefing accompanying the automotive industry sector deal announcement refers to a new NPS: 'Labour will create a new category of Nationally Significant Infrastructure Projects for growth industries, including gigafactories, to simplify and speed up the approvals process for these critical projects. This will sit alongside a plan to accelerate NSIP process that will bring the timeline for decisions down from years to months. The relevant National Policy Statement would include a spatial plan, which could take into account factors such as the significant size and energy demands of a gigafactory.'
[114] Sir Keir Starmer speeches references for 3rd November, 7th November and 4th December speeches; www.sussexexpress.co.uk/news/politics/sir-keir-starmer-visits-sussex-verdict-on-gatwick-airport-second-runway-housing-crisis-nhs-waiting-times-and-future-of-a27-4531018
[115] https://labourlist.org/2023/12/keir-starmer-full-economy-speech-resolution-foundation-today-policy-spending-public-services/
[116] Hansard 26 March 2023 col.1455: 'There is a further lack of clarity over what "residual carbon emissions" means in practice, and the policy statement does not offer a process to distinguish between acceptable residual emissions and emissions that would mean carbon targets would not be met.'
[117] *Ibid* '… the Transport Committee has warned that the gaps in this policy statement that I have just identified could lead to even more costly and time-consuming legal challenges to major projects on climate grounds. This would slow down our snail's-pace planning system even further …'
[118] See https://www.youtube.com/watch?v=rf_B3TY0nmc&t=1101s and https://www.youtube.com/watch?v=wbj7RwObRJ4.
[119] *The future of road investment in Wales* pages 14 and 18. The 300+ page review assessed 44 potential road schemes, p.79.

[120] Welsh Government response to the Roads Review; and Guardian 'Welsh road building projects stopped after failing climate review

[121] Ken Skates statement to the Senedd 23rd April 2024 https://record.senedd.wales/Plenary/13874#A87598

[122] On the causal relationship between road infrastructure and economic growth: Dr Steve Melia, University of the West of England https://bettertransport.org.uk/blog/does-road-building-boost-economy-claim-has-never-been-proven/, then https://www.cpre.org.uk/resources/the-end-of-the-road-challenging-the-road-building-consensus/ There's a variety of analyses and options in the recent Social Market Foundation report *Labour economics: thinking through Labour's economic agenda* April 2024. The essay on infrastructure concludes that: 'the UK is building too little transport infrastructure. That is holding back growth, though precisely how it does so may vary by location.' page 76

[123] Prof Greg Marsden conference presentation, 12th October 2023 https://www.youtube.com/watch?v=Rt2h5yyE9VE The video provides a detailed set of policy proposals from 10mins onwards.

[124] See Social Market Foundation *op cit* footnote 102 page 59; and see Centre for Cities Cities Outlook 2024.

[125] *National Infrastructure Assessment* page 13 : 'Government should invest £22 billion to improve public transport in the largest regional English cities to unlock economic growth. Birmingham, Bristol, Leeds and Manchester are important economic hubs within their wider regions but face the biggest transport capacity constraints. They should be the initial priorities for investment in mass transit systems.' Also note 'Cities will also need to reduce car journeys into congested city centres, especially at peak times.'

[126] RIS2 2020-25 and RIS3 2025-30. It's understood that a draft RIS3 is likely to be published in May 2024 (immediately after this report). It will include a draft Statement of Funds Available indicating how much funding National Highways will be provided with for the period 2025-2030, but it will not contain a breakdown of where the money is going (into maintenance, new roads, or designated funds) or a list of individual schemes that will be included in RIS3. (A list of all the projects that are part of the RIS3 Pipeline can be found in the National Highways Delivery Plan (page 94). The timeline after this is that National Highways publish their draft Strategic Business Plan (SBP) which is then assessed in an Office of Rail & Road (ORR) efficiency review which considers whether the draft SBP will be able to deliver the draft RIS3. The final RIS3 will be published by the next government as part of their first Budget in March 2025.

[127] Transport Committee *Strategic road investment report* paragraph 36

[128] *ibid* page 24

[129] https://transportactionnetwork.org.uk/network-north-the-great-train-robbery/ 'Network North is proposing to spend over £12bn on roads, although this doesn't include the A75 in Scotland or the strategic roads mentioned. In fact by increasing the Department for Transport (DfT) funding contribution for local authority roads, from 85% to 100%, this could unleash a tsunami of damaging road building costing £9bn or more, making a total roads spend of over £20bn enabled by cutting HS2.'

[130] Information from Transport Action Network

[131] NAO*Progress with the 2nd road investment strategy* November 2022: 'By 2025 National Highways will have completed less work on road enhancements and at a higher cost than originally planned. Some change is expected when delivering a portfolio of projects, but there has been more change than anticipated. At the same time, National Highways and DfT could have done more to plan for and manage the potential risks to their portfolio of enhancement work. In recent months, inflationary cost pressures have risen beyond levels that could have been anticipated by National Highways and DfT, who will face difficult decisions about how to prioritise work'.

[132] Transport Committee report *Strategic road investment* July 2023

[133] https://www.orr.gov.uk/search-news/orr-undertake-investigation-national-highways-performance A media report observed: ' The industry regulator says that it has usually managed to work with National Highways to resolve any issues before they became a real problem. But now it feels the need for a wider intervention. It has decided to investigate "whether National Highways is taking every action that could reasonably be expected of it to meet its targets". ORR's annual assessment of National Highways' performance, published in July 2023, identified a number of potential risks, such as delivery of its capital portfolio and asset management strategy. Since then, ORR has observed that those risks have materialised and performance has dipped across several areas. The investigation will look at the root causes of National

Highways' dip in performance and whether the company has the processes in place to deliver its commitments by the end of the current regulatory period in March 2025'.

[134] Eastern Daily Press 2nd March 2024: 'The shadow chancellor said that although existing government commitments to roadworks would be honoured, any remaining funding gaps may not be plugged. 'I'm not going to make any funding commitments unless we can say where the money is coming from.'

[135] https://stonehengealliance.org.uk/

[136] https://transportactionnetwork.org.uk/campaign/legal-action/a66/

[137] https://www.thamescrossingactiongroup.com/

[138] Speech to the Resolution Foundation 4th December 2023

[139] Financial Times 12th August 2024 *Rachel Reeves weighs PFI-style deal for £9bn new Thames crossing*

[140] See the preliminary factual analysis of 13 roads schemes not yet started at https://transportactionnetwork.org.uk/large-road-schemes-in-the-transport-infrastructure-review/

[141]Greater Manchester Transport Strategy 2040, updated 2021, Appendix 1 Right Mix Technical Note (part of the GM Combined Authority's emerging joint spatial strategy.

[142] South Yorkshire regional combined authority 27 Jan 2020 Item 1 https://governance.southyorkshire-ca.gov.uk/documents/s2263/Appendix%20A%20Mayors%20Climate%20Emergency%20Response.pdf; and https://southyorkshire-ca.gov.uk/explore/Active-Travel-Implementation-Plan

[143] Consultation question 69 in *Proposed reforms to the national planning policy framework*

[144] draft NPPF text for consultation (old paragraph 156/new 158). Consultation question 78 relating to climate does ask 'We are keen to understand the range of ways in which stronger action can be taken. … We would like to use this consultation to gather further views on how climate change can be reflected in strengthened policy.'

[145] Transport for New Homes, and see their publication *Upside-down geography in national planning policy*

[146] Create Streets *Stepping off the road to nowhere* March 2024 and some 30+ other case studies

[147] https://decarbon8.org.uk/wp-content/uploads/sites/59/2023/11/bridging-the-gap-report-10-2023.pdf

[148] https://labour.org.uk/updates/press-releases/how-not-if-labour-will-jump-start-planning-to-build-1-5-million-homes-and-save-the-dream-of-homeownership/

[149] And see https://www.bennettinstitute.cam.ac.uk/blog/why-land-use-framework-now/

[150] Element Energy for AEF, 2022 *The role of aviation demand reduction in UK decarbonisation* and Chatham House for Possible 2023 *Net Zero and the role of the aviation industry*.

[151] Chatham House, page 5; DfT JZS further technical consultation dataset, 'scenario 2' tab. Also note that this report sets a different, 'fair share of global carbon budgets', limit within which an aviation pathway must operate.

[152] Chatham House pages 6-9

[153] To now be understood within the context relating to delivery risk as it applies to individual policies (as well as carbon budgets) as established by the 3rd May 2024 Net Zero II legal judgement – see next endnote.

[154] Net Zero II court judgement: 'the failure to identify which, and by how much, individual proposals and policies were likely to miss their targets, meant that the Secretary of State could not work this out for himself.' para 135; See also legal interpretation of the judgement; Friends of the Earth briefing after the judgement with significant documentation used in the case.

[155] S.10 of the CCA requires that international aviation & shipping emissions (IAS) are taken into account when successive carbon budgets are defined, adopted and implemented. After more than a decade of prevarication the DfT in 2021 finally accepted the formal inclusion of IAS emissions from the 6th Carbon Budget onwards (from 2033). However, as of the end of the 2023 that inclusion has still not been legislated.

[156] 2021 Final Emissions tab 1.2 domestic + 5.1 international

[157] See CAA annual airport data for 1990 and 2019, table 9

[158] CAA airport statistics February 2024, compared to February 2019; Times 25th April 2024: 'Heathrow airport has revised up the number of passengers it will handle this year to a record 82.4 million and is beginning to hatch plans to raise the total number of travellers passing through its terminals to 90 million a year.'

[159] TDP, foreword by Secretary of State Grant Shapps page 8

[160] JZS dataset, scenario 2 tab. Note however that the June 2023 *Jet Zero Strategy One Year On* page.11 reduces the proposed JZ S passenger demand expansion of 70% by 2050 to 52% but the DfT failure to update

the national aviation forecasts since 2017 means it's not known at present what is any revised level of projected passenger demand in 2030.

[161] CCC Aviation Sector Summary December 2020 figure P8.2 page 37; 2023 Progress report page 267; 2024 Progress report page 53.

[162] Jet ZeroStrategy dataset,'emissions all scenarios' tab

[163] Transport & Environment 19th April 2024: 'Ryanair, easyJet, and Jet2 emitted 13.5%, 4.8% and 26.3% more than their 2019 emissions respectively. This suggests that budget airlines are the driving force behind emissions bouncing back.'

[164] DfT *JZS. One Year On* page 10-11.

[165] As the Chatham House report corroborates: 'Although the DfT characterizes this scenario as 'high ambition' it should be noted that the level of residual emissions it targets in 2050 is around 20 % higher than UK aviation emissions in 1990 – the UK's baseline year for its Climate Change Act commitments.'

[166] CCC 2020 6th carbon budget main report table 2.2 page 68; aviation sector summary page 33

[167] DNV UK Energy Transition Outlook 2024 pages 4 and 80. It noted: 'Our forecast shows that the UK's annual emissions will amount to some 125 MtCO2e in 2050. That implies a significant 85% reduction relative to 1990 levels, but not the 100% reduction by 2050 which the UK legislated for in 2019. Similarly, the UK will also not meet its Nationally Determined Commitment (NDC) of reducing emissions by 68% by 2030 compared with 1990; we expect an emissions reduction of around 55% by then relative to 1990 levels.'

[168] Energy Systems Catapult *Innovating to Net Zero 2024* pages 37, 42 and 81.

[169] For an explanation of these see CCC 2022 Progress page 335. Also see CREDS *The non-CO2 impacts of planes are a key reason to reduce aviation demand:* 'Prof.David Lee et al estimate that, by 2018, the amount of effective radiative forcing (i.e. a measure of the cumulative warming effect from the birth of the aviation industry up to 2018) that was due to aviation was 2.9 times as great as the amount due to aviation CO2 emissions alone. ' In relation to the effect of contrails see www.transportenvironment.org/discover/plane-to-see

[170] DfT JZS pages 55-58 and *JZS One Year On* pages 33-34; and see Imperial College August 2024 *Study on planet- warming contrails a 'spanner in the works' for aviation industry* – 'Modern commercial aircraft flying at high altitudes create longer lived planet warming contrails than older aircraft, a new study has found'.

[171] Chatham House page 43

[172] CREDS (Centre for Research in Energy Demand Solutions), December 2023 *The non-CO2 impacts of planes are a key reason to reduce aviation demand*

[173] www.carbonbrief.org/guest-post-calculating-the-true-climate-impact-of-aviation-emissions

[174] A search of both documents shows that the 'cumulative impact' term is entirely missing from both.

[175] *Carbon Brief* September 2020 and quoting its August 2016 article *Aviation could consume a quarter of 1.5C carbon budget by 2050*. NB that the reference to 'a decent chance of keeping global temperature rise below 1.5C' is from an article from 2016.

[176] Element Energy page 19-20

[177] HoC library *aviation, decarbonisation and climate change* page 11; https://neweconomics.org/2024/04/sharing-the-carbon-pie-with-a-frequent-flyer-levy

[178] Business trips fell from making up 24 percent of all air travel in 2002 to 17 percent in 2019. Visiting family and friends became more common. https://www.statista.com/statistics/303774/travel-purpose-trends-at-uk-airports/

[179] CCC CB6 report, aviation sector summary figure P8.2 passengers in 2018 - **292mppa**; in 2035 - **297mppa**; between 2035-50 'later growth [2050 – 365mppa], no net airport expansion. JZS by contrast proposes to exceed that volume of passenger demand by 2032 – 369mppa JZS dataset, Scenario 2 tab

[180] assets.wwf.org.uk/downloads/airport_capacity_report_july_2011.pdf https://www.aef.org.uk/uk-airport-expansions/ and see the list of current expansion proposals and approvals on that webpage

[181] www.airportwatch.org.uk/2023/03/uks-biggest-airports-between-**them**-hope-for-60-increase-in-passengers-compared-to-2019-level/

[182] CCC 2023 progress page. 276 box 10.1

[183] https://www.aef.org.uk/campaigns/challenging-airport-expansion/

[184] CCC 2023 Progress , page 267. In 2024 Progress *page 96* the repeated 'priority recommendation' in full is: '**Stop airport expansion without a UK-wide capacity management framework.** No airport expansions should proceed until a UK-wide capacity management framework is in place to annually assess and, if required, control the sector's GHG emissions and non-CO2 effects. A framework should be developed by DfT in cooperation with the Welsh Government, Scottish Government and Northern Ireland Executive. After a framework is developed, there should be no net airport expansion unless the carbon intensity of aviation is outperforming the Government's emissions reduction pathway and can accommodate the additional demand.'

[185] HMG October 2023 'Responding to the Climate Change Committee's (CCC) 2023 Annual Progress Report to Parliament', page 43

[186] DfT Jet Zero Strategy page 74; DfT June 2018 *Making best use of existing runways*

[187] For the status of these applications see https://www.aef.org.uk/uk-airport-expansions/

[188] London City Airport decision letter; Guardian 19th August 2024 *London City airport expansion given green light by ministers;* Transport North website *Labour and airport expansion, all over again*

[189] Airport Operators Association magazine 2023 conference edition, pages 18-20'Labour backs partnership with a strong aviation industry'. However replies received from Labour MPs from constituency enquiries have a more critical tone: e.g 'Given that it remains the largest contributor to UK emissions, decarbonising our transport sector must be a priority for the Government. .Aviation is a key part of that. The Climate Change Committee has warned that aviation is likely to be the largest emitting sector in the UK by 2050, even with strong progress on technology and limiting demand.'

[190] Evening Standard 2nd July; Financial Times 22nd July 'Labour signals 'open-minded' approach to Heathrow third runway'; Guardian 24 July 'Heathrow prepares third-runway blueprint for Labour amid record passenger numbers'.

[191] https://x.com/LouHaigh/status/1813860996081205494 18th July 2024

[192] https://travelweekly.co.uk/news/air/transport-secretary-pledges-to-help-aviation-grow-sustainably

[193] Sussex Express 23rd February 2024 'Having grown up around these parts, I know just what a major hub Gatwick is for passengers going in and out of the country. For all the local communities around here it's a massive source of work. It's very important and we must never lose sight of that. We will have to take decisions in government about what we do about airport expansion what the competing arguments are. We will look at the situation we inherit as we go into the election. I'm a big supporter of Gatwick.'

[194]

[195] This recommendation was then translated into the Airports NPS approved by Parliament in 2018 - see Q 36 on page 35.

[196] Financial Times 22nd July 2024

[197] The path for this was prepared by the Transport for the North International connectivity position statement September 2022 to 'position the North' as a leader in the production of sustainable aviation fuels and development of zero emissions aircraft pages 8 and 12.

[198] https://www.southyorkshire-ca.gov.uk/news/article/2b1a1a33-b81d-421b-a9d1-d9e86547d585; https://www.welcometosheffield.co.uk/content/articles/boeing-joining-forces-with-the-world-s-largest-aerospace-company/ ; Element Energy *West Yorkshire Emissions reduction pathways*, 2020 'maximum ambition scenario' page 26, and see BBC *Airport unveils ambitions for long haul flights* 9th August 2024.

[199] https://mediacentre.manchesterairport.co.uk/political-and-business-leaders-back-report-showing-how-manchester-airport-can-drive-northern-growth-and-a-rebalancing-of-the-economy/; https://theorg.com/org/mag; https://democracy.manchester.gov.uk/ieListDocuments.aspx; . The Arup report doesn't appear to be publicly available.

[200] IFS 2008 Green Budget, chapter 9 Aviation Taxes

[201] Independent April 2023 'Ryanair CEO Michael O'Leary said "The halving of APD on domestic flights has allowed Ryanair to add more domestic routes to our UK schedule.' At the same time APD was raised on super long haul flights, which might therefore result in just a net increase in emissions. However emissions on both domestic and international air travel should be reducing.

[202] IFS op cit; T&E *Reducing UK aviation's climate impacts* January 2022, section 4.1 kerosene taxation; and see House of Commons library *Taxing aviation fuel* October 2019

[203] Green Alliance, May 2024 *Kerosene tax: how to embed the polluter pays principle in aviation*
[204] Chatham House page 9; Element Energy page 19
[205] DfT *Airports NPS: new runway capacity and infrastructure at airports in the SE of England* para. 8.6: 'The carbon capped policy regime assumes that total emissions from UK departing flights are capped at 37.5 MtCO2 per annum in 2050, as per the planning assumption made by the Committee on Climate Change.' Footnote 109 then refers to the February 2017 Updated Appraisal Report which found that the preferred LHR NWR option resulted in 2050 emissions of 40tCO2e *figure 8.1*, and then modelled two interventions reducing those by 2.6MtCO2e *table 8.1*, resulting in net emissions of 37.4MtCO2e.
[206] https://www.gov.uk/government/speeches/chancellor-rachel-reeves-is-taking-immediate-action-to-fix-the-foundations-of-our-economy however this Limited the updating of NPSs to just 'relevant' ones (it's not been stated which) and now within 12 months.
[207] DfT *Making best use of existing runways* 2018 paragraph 1.25: 'As a result of the consultation and further analysis to ensure future carbon emissions can be managed, government believes there is a case for airports making best of their existing runways across the whole of the UK'. This was then incorporated within JZS p.74. Heathrow is excluded from this approach.
[208] Planning Inspectorate report on Bristol airport appeal February 2022 paras. 212-216 'The aviation emissions are not so significant that they would have a material impact on the Government's ability to meet its climate change target and budgets.'
[209] Environmental Audit Committee *Government response to the committee's report on Net Zero and the aviation sector* March 2024 recommendation 2
[210] Jet Zero Strategy page 74 'Our analysis shows that it is possible to achieve our goals without the need to restrict people's freedom to fly.'
[211] JZS page 10 'We will continue to support sustainable airport growth. … Our analysis shows that the sector can achieve Jet Zero without the Government needing to intervene directly to limit aviation growth, with knock-on economic and social benefits.'
[212] DfT May 2022 *Flightpath to the future: a strategic framework for the aviation sector* See in particular footnote 13 on page 27pdf , which references not just *Making best use* but also the 2018 Aviation NPS as providing the existing policy frameworks for airport planning which the government is supportive of airports using to bring forward expansion plans. Whilst this provides an apparent reassurance that 'The government is clear that expansion of any airport must be deliverable within the UK's climate change obligations to be able to proceed', what it neglects to point out is that the test of those obligations is drafted in such a way that it is intended not to be fulfilled.
[213] More in Common April 2024 Europe Talks Flying: Navigating public opinion on aviation and climate
[214] The DfT prescribed intervention types - system efficiencies, sustainable aviation fuels, zero emission flight, markets & removals, influencing consumers, and non-CO2 – are defined and described in JZS chapter 3. The one intervention that notionally acts on demand (influencing consumers) does so quite at the margin but also includes support for supply-side airport capacity expansion – para.3.61 . A recent expert review commissioned by CCC into The Implications of Behavioural Science for Effective Climate Policy found that: 'Reducing emissions from aviation will require significant behaviour change and cannot rely on new technology or voluntary industry initiatives.'
[215] DfT JZS page 10 'Through both our consultations, we received a high volume of responses about the desire for demand management measures to reduce aviation emissions. … Our analysis shows that the sector can achieve Jet Zero without the Government needing to intervene directly to limit aviation growth, with knock-on economic and social benefits.'
[216] JZS further technical consultation document March 2022 pages 16-28
[217] Chatham House page 18
[218] Element Energy page 18
[219] AEF 25th April 2024 https://www.aef.org.uk/2024/04/25/uk-saf-mandate-aef/ ; and see Travel Weekly 25th April 2024 *Jet fuel from waste won't solve aviation emissions problem*
[220] CCC 2022 progress box 9.2.
[221] JZ consultation *Evidence & Analysis* para.2.22
[222] The Green Alliance briefing *The sky's the limit: the role of zero emission flight in reaching net zero* February 2024 broadly accords with the analysis in this report e.g 'On current projections, [aviation] is unlikely to make

any significant decarbonisation progress until the 2040s' but its conclusion that 'the route to zero emissions flights has not been strategically formulated' p.2 is not borne out by the overwhelming policy emphasis by the DfT since 2022 on indeed 'strategically formulating' that route.

[223] Environmental Audit Committee *Government response to the committee's report on Net Zero and the aviation sector* March 2024 page 1

[224] FT 2023 *UK government cuts the cost of polluting in latest anti-green move*; and see Open Democracy 16th March 2023 *UK government lets airlines off the hook for £300m air pollution bill*.

[225] www.theguardian.com/business/2023/feb/28/scientists-uk-aviation-net-zero-ambitions-half-farmland-double-renewable-electricity
www.theguardian.com/environment/2023/dec/14/calls-for-tighter-rules-on-biofuels-imports-palm-oil-saf

[226] Element Energy figure 23 'This is due to the DfT High Ambition scenario targeting only limited emission reductions by 2035, relying on residual emissions to be abated through other sectors.' In the green Alliance policy tracker page 7 March 2024 it observes 'expected emissions reductions from aviation over 2028-32 are small [for the reason that] very few savings are expected from aviation in the near term'

[227] The potential for the term'sustainable aviation fuels' to be used for the purposes of 'greenwashing' away perceptions of aviation's climate risk is well illustrated by this commentator: 'We all know that SAF is better than jet fuel, but that is not the real issue," he said. "The issue is whether one can claim to be sustainable in general when 0.001% of your fuel is 80% less polluting. I suspect that the airlines are on the wrong side of this.'

[228] Carbon Brief 13th May 2024 *Benefits of UK 'sustainable aviation fuel' will be wiped out by rising demand* 'UK government targets for 'sustainable aviation fuels' will only cut emissions from the sector to 0.8% below current levels in 2040, Carbon Brief analysis shows.' Also see Guardian 14th May 2024 *Magical thinking: hopes for sustainable jet fuel not realistic, report finds*, referencing the Institute for Policy Studies report *Greenwashing the skies*.

[229] Element Energy page 31-32.

[230] https://neweconomics.org/uploads/files/frequent-flyer-levy.pdf

[231] https://neweconomics.org/uploads/files/FFL_table1.png;
https://neweconomics.org/uploads/files/FFL_fig4-2.png

[232] DfT *Jet Zero Strategy One Year On* July 2023 page 12

[233] CCC 2023 Progress page 279

[234] Environmental Audit Committee *Government response to the committee's report on Net Zero and the aviation sector* March 2024 recommendation 14

[235] Element Energy pages 5-6

[236] Grantham Research Institute/ Centre for Climate Change Economics & Policy *Who pays for GHG removal in the UK* August 2022

[237] CCC Aviation Sector Summary December 2020 page 26.

[238] Government response to EAC report (endnote 223) page 1; Jet Zero Strategy page 5

[239] https://labour.org.uk/updates/press-releases/labour-promises-to-allow-every-community-to-take-back-control-of-local-bus-services/ ; 25th April document *Getting Britain moving: Labour's plan to fix Britain's railways*. But also see BBC Labour pledges to renationalise most rail services **within five years** *emphasis added*

[240] Louise Haigh tweet 18th July 2024 https://x.com/LouHaigh/status/1813860996081205494, see video at 20 seconds

[241] Labour Party *Clean Energy Superpower* possibility page 21

[242] Labour *Getting Britain moving* page 16

[243] Footnote 25 in *Getting Britain moving* refers to footnotes 17 & 18 in *Accelerating modal shift: evidence on carbon savings and co-benefits ;* and
https://www.gov.uk/government/statistics/transport-statistics-great-britain-2023/transport-statistics-great-britain-2022-domestic-travel

[244] Note that this example also excludes around 20 billion road freight kilometres

[245] For a general discussion about the potential for modal shift see
https://greenallianceblog.org.uk/2024/05/02/giving-people-more-transport-choices-is-an-economy-boost-and-levelling-up-opportunity/

[246] Transport Scotland *Reducing car use for a healthier, fairer and greener Scotland* Note that this document uses the terminology 'mode switching' more than 'shifting'. See its even more detailed technical at Annex on the methodology behind the targets and interventions.
[247] https://www.gov.wales/written-statement-llwybr-newydd-wales-transport-strategy-2021
[248] www.gov.uk/government/statistics/transport-statistics-great-britain-2022/transport-statistics-great-britain-2022-domestic-travel The relative cost of transport by mode, which favours road travel is strongly determinant: CCC 2023 Progress figure 4.9 page 120; and also see pages 114-15
[249] CCC 6th Carbon Budget Surface Transport sector summary report page 10
[250] TQL *Public transport fit for the climate emergency* pages 17-18. The study covers England & Wales. Their assumptions are that 10% of total car mileage will be reduced through measures such as working from home, use of remote technologies, destination shifting, better landuse planning, and more carsharing, and another 10% can be reduced by mode shift, predominantly to rail.
[251] The numbers in the TQL TUC study illustrate the very large cost of attempting 'transport decarbonisation by boosted public transport'. These include: additional operating expenditure of around £7.5bn (buses) and £11bn (trains) annually, to provide public transport services good enough to attract the necessary extra passengers [by 2030]; capital expenditure of around £24bn by 2035 for bus improvements; and around £90bn by 2035 to expand and electrify the rail network.
[252] TQL *Carbon savings from public transport improvements in Wales* page 31 and table 4.3
[253] Centres for Cities report November 2023 *Gear shift* figure 1 Large UK cities have lower shares of commuting by public transport than their European peers. But at the same time, such as the bus services are collapsing: https://policy.friendsoftheearth.uk/insight/how-britains-bus-services-have-drastically-declined
[254] *National Infrastructure Assessment* page 13 : 'Government should invest £22 billion to improve public transport in the largest regional English cities to unlock economic growth. Birmingham, Bristol, Leeds and Manchester are important economic hubs within their wider regions but face the biggest transport capacity constraints. They should be the initial priorities for investment in mass transit systems.' Also note 'Cities will also need to reduce car journeys into congested city centres, especially at peak times.'
[255] https://www.newcivilengineer.com/latest/fund-for-northern-powerhouse-rail-could-reach-20bn-02-11-2023/
[256] 2024 Spring Budget document page 29 table 2.1
[257] Cycling Industry News September 2022 *£18 billion required to deliver cycling masterplan, says Boardman*
[258] https://www.crowdjustice.com/case/stop-the-cuts-to-walking-and-cycling/;
/www.theguardian.com/politics/2023/jun/05/ministers-face-legal-challenge-over-cuts-to-walking-and-cycling-investment-in-england; https://twitter.com/TransportActio2/status/1785666310749245811
[259] Guardian 20th August 2024 *Labour investment in cycling and walking will be unprecedented, says Louise Haigh*
[260] DfT Transport Decarbonisation Plan page 152
[261] Subnational transport bodies, were established by the 2016 Cities & Local Government Devolution Act, with 7 English regional organisations joining the already existing Transport for London - more information here. However at the moment just one STB, Transport for the North (TfN) has statutory status with the reminder existing only as shadow bodies.
[262] Marsden G. and Anable J. (2021) Behind the Targets? The Case for Coherence in a Multi-Scalar Approach to Carbon Action Plans in the Transport Sector. This paper identifies 3 categories where coherence is required but is not present: 'budget' - are the carbon budgets aligned across authorities and scales?; 'accounting' - what gets counted where?; and 'policy' - how are budgets aligned with the capacity to act?
[263] Element Energy for Scottish Government, September 2021: Decarbonising the Scottish transport sector . These quotations are from pages 9-10. See https://www.transport.gov.scot/our-approach/mission-zero-for-transport , and also commentary on these issues by https://transform.scot the Scottish transport campaigning NGO.
[264] Wales Transport Strategy March 2021, and see also https://tfw.wales/projects/transport-planning/decarbonisation-and-electric-vehicles
[265] https://transform.scot/2024/03/19/new-report-finds-scotlands-dirty-deals-fuelling-climate-and-poverty-failures/ ; https://transform.scot/2024/04/18/climate-targets-scrapped-transform-response/
[266] https://en.wikipedia.org/wiki/Sub-national_transport_body

[267] TfN Decarbonisation Strategy December 2021
[268]; TfSE Carbon Assessment November 2020
[269] Midlands Connect *Strategic Transport Plan* pages 37-41pdf Local Transport Today 871 page 16: *Midlands connect toolkit designed to create carbon cutting LTPs*
[270] TDP page 151
[271] DfT letter 12th May 2023
[272] CCC 2024 Progress page 93 '**Publish local transport plan guidance.** Publish guidance to local authorities on what should be covered in local transport plans to enable people to switch to lower-carbon modes of travel. This should include consistent guidance on how to quantify the emissions reductions that these measures can be expected to deliver as well as long-term clarity on what funding streams will be available to implement plans.'
[273] https://integratedtransport.org.uk/are-councils-plans-for-local-road-schemes-compatible-with-the-declaration-of-a-climate-emergency
[274] Yorkshire Post 15th March 2022 West Yorkshire Mayor Tracy Brabin: "I really believe as a mayor to say, 'We don't need an airport' would be slightly mad and pulling up the drawbridge.'; whereas objectors had not proposed that the airport be closed but rather not expanded on carbon grounds .
[275] TDP pages 9-11 and 17pdf
[276] CCC 2021 Monitoring framework
[277] DfT TDP One Year On review July 2022.
[278] As displayed in the diagrams of figure 4.10 page 122, Figure 10.9 page 278, and figure 11.4 page 292.
[279] CCC *2023 Progress* page 108 Policy progress over the past year has been slower than expected, as various key documents and decisions have been delayed. This increases delivery risk across the sector, both by directly delaying deployment and by squeezing regulatory development timelines, reducing the ability for policies to push for greater ambition and leading key regulatory proposals to include more flexibility. The Government must now proceed with urgency to get plans in this key sector back on track.'
Ibid page 108: 'While these policies are still referenced in the Government's plan, making a choice not to quantify them signals a lack of commitment to modal shift. A pathway that is almost exclusively technology-dependent is likely to be less cost-effective, entails higher delivery risk … and risks missing out on opportunities to realise co-benefits to society.'
Ibid page 122: 'Policy progress in the surface transport sector over the past year has been slower than expected, with credible policies in place to meet only 38% of the required emissions reduction by the Sixth Carbon Budget period and delays to key policies increasing delivery risks (Figure 4.10, Table 4.1).
[280] *Ibid* page 113: 'Measures to reduce car demand are largely absent from the Government's CBDP quantified delivery pathway, so we are not able to compare this against any clear pathway showing Government ambition, only the wide assumption ranges used in DfT's Transport Decarbonisation Plan. Compared to the CCC's pathway (Figure 4.2h), car demand is currently on track although there is a significant risk that this will fall off track if pre-pandemic traffic growth trends resume.'
[281] *Ibid* page 120 box 4.1: 'If these market challenges continue, then the market share targets set through the ZEV mandate will equate to fewer vehicles than had previously been expected, slowing the pace at which the overall fleet can transition to electric and potentially resulting in older, more-polluting vehicles remaining on the road for longer. This poses a risk to the delivery of the emissions pathways required.'
[282] *Ibid* page 128: 'In response to the Transport Committee's inquiry in January, the Chancellor confirmed that the Government currently has no plans to consider road pricing. Without such plans, the consequent absence of central leadership risks an inconsistent mix of local schemes (e.g. clean-air zones, low-emission zones, zero-emission zones) and large fiscal shortfalls.'
[283] *Ibid* page 278 'The required emissions reduction for the Sixth Carbon Budget period is therefore at significant risk'; and see Figure 10.9.
[284] *Ibid* page 267 'The Strategy carries considerable risks in relation to the aviation sector's contribution to emissions abatement for the Sixth Carbon Budget.'
[285] *Ibid* page 267 'The Jet Zero Strategy approach is high risk due to its reliance on nascent technology – especially rapid SAF uptake and aircraft efficiency savings – over the period up to the Sixth Carbon Budget. The Government does not have a policy framework in place to ensure that emissions reductions in the aviation sector occur if these technologies are not delivered on time and at sufficient scale.

[286] *Ibid* page 292 figure 11.4
[287] See *Government response to CCC 2022 progress report recommendations* March 2023 e.g Recommendation 221 page 130 and. Rec.271 page 155.
[288] The existence of Risk Tables withheld from the public, the CCC, and MPs has emerged in the pre-action protocol correspondence in the second NZS legal case. These tables set out information about the delivery risk associated with each policy or proposal contained in the CBDP, see https://goodlawproject.org/crowdfunder/net-zero-2 and the link within to the Statement of Facts and Grounds (SFG) at https://glplive.org/NZ2-SFG
[289] Friends of the Earth Ltd & Ors v Secretary of State for Energy Security and Net Zero [2024] EWHC 995 (Admin), cited as Net Zero II paras 116 and 132
[290] *Ibid* paras 26; see also references to 'effort shares' in Briefing to incoming minister November 2022 and First internal request to government departments December 2022
[291] See the RAG rating chart for DEFRA in the witness statement of Niall Toru page 6.
[292] *Op cit* page 21
[293] www.instituteforgovernment.org.uk/publication/general-election-access-talks
[294] www.theguardian.com/politics/2024/jan/17/labour-request-talks-with-civil-service-in-preparation-for-no-10
[295] CBDP Technical Annex page 12 paragraphs 21-23 and table 3.
[296] CBDP main document, appendix D pages 180-81 paragraphs 37-41
[297] For a thorough analysis of the extent of delivery risk see Dr Andrew Boswell (Climate Emergency Planning & Policy) evidence submitted to the Lower Thames Crossing planning inquiry Paragraph 95 on page 31 summarises the extent to which these risks are at the moment not properly assessed or controlled.
[298] Court judgement paragraph 249
[299] CCC 2024 Progress page 75
[300] https://www.wearepossible.org/latest-news/update-all-the-latest-on-action-against-aviation-emissions

[301] 'effort share allocation': see page 54 and endnotes 290-91.
[302] CCC December 2009 *Meeting, the UK aviation target: options for reducing emissions to 2050* . Note that Labour was in power when this quite unfair favourable treatment of aviation emissions was established.
[303] Ed Miliband speech, Green Alliance event 19th March 2024
[304] WWF Net Zero Test October 2021; Institute for Government Passing the Net Zero Test
[305] Included in the accompanying Issues Briefing
[306] https://twitter.com/LouHaigh/status/1711425705601278297 DfT *Network North: transforming British transport* October 2023. This contains a 'list of schemes' as at its publication date of 4th October see in particular pages 27-28pdf, but a subsequent and changing list is at www.gov.uk/government/publications/network-north and scroll down.
[307] As of mid-May 2024 the current state of the political parties according to YouGov is Labour-48%; Conservative-18%; Reform-13%; Lib Dems-10%; Green-8 %. Predictions of seat shares are at : www.bestforbritain.org/spring-2024-polling and www.electoralcalculus.co.uk/prediction_main.html
[308] Fortunately there's a wealth of expertise available to assist in the process of passing the transport decarbonisation test. Principally within the Climate Change Committee itself; from the platoon of transport academics, who already have this analysis under their fingertips; and amongst campaigning NGOs. From the latter, for roads we particularly recommend Transport Action Network; for aviation the Aviation Environment Forum and Possible.
[309] https://transportforthenorth.com/future-travel-scenarios
[310] The latter were specified and their related datasets provided, but whilst scenarios were used in the preparation of the TDP, their technical detail and modelling were not disclosed.
[311] Greener Vision June 2023 *Pathways to Net Zero: Delivering Net Zero Road Transport* Annex 2
[312] DfT 28 September 2023: 'The government has today set out the percentage of new zero emission cars manufacturers will be required to produce each year up to 2030 … The path will support manufacturers and families in making the switch to electric, providing flexibility while also helping grow the economy.'
[313] See the discussion in the Transport Committee report Road Pricing February 2022; House of Commons library briefing paper Road Pricing August 2020