

Delivering an ambitious Transport Decarbonisation Plan

Summary

In 2020, the government recognised the need to put transport on track for a 2050 net zero emissions target through a Transport Decarbonisation Plan (TDP), which is expected in 2021.

However, the extent to which the TDP will provide the ambitious, comprehensive, quantified plan needed to get the transport sector on track for net zero is not clear. We are concerned that the Plan could be presented as a collection of other transport strategies that are due in 2021 and not a comprehensive transport plan for the next decade and roadmap to decarbonise transport by 2050. **It is essential the TDP provides a clear pathway to net zero for the entire transport sector and commits to policies and spending for the next 10 years.**



We believe the Transport Decarbonisation Plan must meet the following four criteria.

1. Establish national and regional quantified emissions reduction pathways and interim targets for the transport sector as a whole and separately for surface transport and aviation and shipping. These must be consistent with a net zero pathway for the UK, with surface transport and shipping reaching zero emissions well before 2050, and aviation reaching net zero for all emissions (including non-CO₂ emissions) by 2050. All transport sectors must already be achieving substantial emissions reductions by 2030.
2. Commit to the policies and funding needed to achieve the next ten years of emissions reductions across each mode of transport in line with the transport sector making a fair contribution to the UK meeting its 2050 net zero emissions target.
3. Be a living document, with annual reports to parliament on progress and on-going opportunities for scrutiny from stakeholders, that sets out clear responsibilities for devolved and local government and transport bodies. It must clearly link to the relevant work programmes of other departments, in particular to the Planning White Paper and Net Zero Strategy.
4. Encourage innovation, employment and UK industrial leadership, and monitor and optimise non-climate impacts of transport to ensure that decarbonisation measures also improve other indicators of health and economic development.



The scale of the challenge: decarbonising the whole transport sector

Transport is the UK's biggest single source of greenhouse gas emissions, accounting for 34% of UK emissions in 2019¹. GHG emissions for surface transport have remained flat since 1990², whilst emissions from aviation have doubled. Because other sectors have decarbonised faster than transport, the share of the UK's annual carbon emissions taken up by the transport sector has nearly doubled since 1990³.

Surface transport

For the UK economy to reach net zero emissions in 2050, surface transport must be producing zero emissions before 2050. The Committee on Climate Change's Balanced Pathway Scenario in their sixth carbon budget advice recommends this requires⁴:

- Total emissions from surface transport reducing to 62MtCO₂e in 2030, 32MtCO₂e in 2035 and 12MtCO₂e by 2040. If the surface transport sector were to reduce emissions to 62MtCO₂e in 2030, it would represent a 45% reduction compared to 2019 emissions of 113MtCO₂e.
- Sales of pure battery electric cars and vans making up 100% of new sales of cars and vans by at least 2032, with hybrids playing only a minimal role after 2030
- Car kilometres driven growing more slowly than forecast.
- Zero emissions HGVs, coaches and buses making up 96% of new sales by 2035
- 44% of rail track being electrified by 2030 and all diesel trains being removed by 2040

The CCC's Balanced Pathway Scenario represents the minimum level of decarbonisation needed in the surface transport sector: in reality, more ambition is needed if surface transport is to make a fair contribution to emissions reductions up to 2030 and beyond. In particular, the CCC still expects in its Balanced Pathway Scenario that overall car kilometres will grow by 15% in 2050, which is both unambitious in terms of emissions in the medium term and has poor outcomes for public health, equity and fairness. Research has shown that even if all new car sales are electric by 2030, it will still be necessary for car mileage to be at least 20% lower in 2030 than now, if the UK is to deliver its fair share of global carbon reduction⁵.

Aviation and shipping

Aviation must also reach net zero emissions and shipping zero emissions by 2050 if the

¹ Analysis based on Committee on Climate Change (2020) Sixth Carbon Budget Dataset <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-Charts-and-data-in-the-report.xlsb>

² Committee on Climate Change (2019) Net Zero Technical Report

³ Analysis based on Committee on Climate Change (2020) Sixth Carbon Budget Dataset <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-Charts-and-data-in-the-report.xlsb>

⁴ Committee on Climate Change (2020) Sixth Carbon Budget Advice

⁵ Transport for Quality of Life (2018) Briefing: More than Electric Cars

UK is to achieve its overall emissions target. The Committee on Climate Change's Balanced Pathway Scenario in their sixth carbon budget advice suggest this requires at least:

- Total emissions from aviation reducing to 33MtCO_{2e} in 2030 and 29MtCO_{2e} by 2040. If the aviation sector were to reduce emissions to 33MtCO_{2e} in 2030, it would represent a 15% reduction compared to aviation emissions in 2019 (39MtCO_{2e}), but an increase of 57% compared to aviation emissions in 1990 (which were 21MtCO_{2e})⁶. Overall, emissions from aviation would be 23MtCO_{2e} in 2050 and shipping emissions would be 1MtCO_{2e} in 2050. Remaining emissions in these sectors would need to be removed by greenhouse gas removal techniques.
- Demand for aviation growing more slowly than forecast.
- A minimum goal of no additional warming from aviation's non-CO₂ effects by 2050: aviation's non-CO₂ impacts currently contribute around two-thirds of the total aviation effective radiative forcing⁷ due to contrails, NO_x emissions and other factors.

The CCC's Balanced Pathway represents the minimum level of decarbonisation needed in the aviation and shipping sectors: in reality, more ambition is needed if aviation and shipping are to make a fair contribution to emissions reduction to 2030 and beyond. Their scenario for demand reduction in air travel is inadequate. The CCC still recommends allowing a 25% growth in air passenger demand in 2050 compared to 2018 levels, rather than the 64% growth in air passenger demand expected in their baseline scenario. The CCC's most ambitious scenario sees demand for air travel reduce by 15% in 2050 compared to 2018 levels. The CCC's scenarios also rely heavily on remaining emissions from aviation and shipping being removed by greenhouse gas removals, but there is limited capacity of genuine carbon removal, and it must also be shared with other hard-to-abate sectors.

It is vital that there is strong domestic action on aviation and shipping, since the international decarbonisation agreements agreed by the aviation and shipping sectors will not deliver sufficient carbon reduction. CORSIA will not have any impact until emissions in the aviation sector exceed 2019 levels and will then only offset further emissions growth, while the IMO's shipping decarbonisation strategy only aims for a 40% reduction in shipping emissions in the next decade compared to 2008.

⁶ Committee on Climate Change (2020) Sixth Carbon Budget Dataset <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-Charts-and-data-in-the-report.xlsb>

⁷ Committee on Climate Change (2020) Sixth Carbon Budget Advice, Box 8.6 <https://www.theccc.org.uk/wp-content/uploads/2020/12/The-Sixth-Carbon-Budget-The-UKs-path-to-Net-Zero.pdf>

Transport Decarbonisation Plan: criteria for success

1. **Establish national and regional quantified emissions reduction pathways and interim targets for the transport sector as a whole and separately for surface transport and aviation and shipping. These must be consistent with a net zero pathway for the UK, with surface transport and shipping reaching zero emissions well before 2050, and aviation reaching net zero for all emissions (including non-CO₂ emissions) by 2050. All transport sectors must already be achieving substantial emissions reductions by 2030.**

- a. Overall, the emissions reduction from surface transport and shipping must reach zero emissions by 2050 at the latest. Aviation must make substantial progress towards zero emissions by 2050, prioritising in-sector reductions which offer greater certainty of emissions reduction (and command higher levels of public trust) than greenhouse gas removals. Quantified interim emissions reduction targets for 2030 and 2040 should be set out for each transport mode and include indirect aviation emissions.
- b. New indicators for decarbonising transport should be developed to measure and set targets against, including but not limited to:
 - i. Indicators on traffic reduction compared to today's levels, including better metrics for miles cycled/walked and trips taken on public transport against miles/trips taken in a car.
 - ii. A new framework for companies to measure and reduce emissions associated with delivering goods by 2030.
 - iii. The number of zero emission vehicle miles compared to the total vehicle miles being driven in the UK.
 - iv. Tracking of transport decarbonisation's impact on related factors like employment, innovation, regeneration and equity (see criteria 4).

2. **Commit to the policies and funding needed to achieve the next ten years of emissions reductions across each mode of transport in line with the transport sector making a fair contribution to the UK meeting its 2050 net zero emissions target.** This includes:

- A. Supportive policies to increase supply and demand of EVs and accelerate the move away from petrol, diesel and hybrid cars and vans by 2030
- B. Ensuring infrastructure enables low carbon travel through a test for new transport infrastructure that ensures it is compatible with a net zero goal
- C. Policies to promote demand reduction and modal shift to walking, cycling and public transport, including investment in infrastructure for active travel and public transport, bus and rail fares reform, road pricing and a review of road expansion and of planned airport capacity.
- D. Ensuring local highways authorities understand the role that the planning process can play in reducing travel demand and transport carbon emissions

3. **Be a living document, with annual reports to parliament on progress and on-going opportunities for scrutiny from stakeholders, that sets out clear responsibilities for devolved and local government and transport bodies. It must clearly link to the relevant work programmes of other departments, in particular to the Planning White Paper and Net Zero Strategy.**

- A. Progress should be monitored through an annual review to parliament that demonstrates delivery of emissions reductions. It must have on-going opportunities for external scrutiny and be transparent in its assumptions to assist this. Progress should be measured against key indicators and interim milestones.
- B. Clear responsibilities for devolved, city and local transport bodies should be set out, alongside a route for effective coordination between different levels of governance. Appropriate resourcing and powers should be given to devolved, city and local transport bodies to deliver a transition to low carbon transport.
- C. Plans for how the DfT will work with other departments to put in place emissions reduction policies should be set out, including how the TDP fits with wider government work, in particular the planning white paper and net zero strategy.

4. **Encourage innovation, employment and UK industrial leadership, and monitor and optimise non-climate impacts of transport to ensure that decarbonisation measures also improve other indicators of health and economic well-being**

- A. The Plan should encourage investment in green innovation to better understand the opportunities of future technologies and support industry to transition to a low carbon transport system to safeguard jobs and to create new ones. It should aim to provide funding for promising innovations in difficult to decarbonise aspects of transport alongside rolling out solutions we already know work.
- B. The Plan should contribute to 'levelling up' and economic renewal by ensuring there is a fair balance between transport for cities and rural areas, and that investment is seen in areas most affected by the transition to low carbon transport or worst hit by the economic repercussions of the pandemic.
- C. The Plan should introduce requirements for any new policy to contribute to meet environmental targets for both emissions and air pollution reductions.

This briefing was jointly developed by Green Alliance, Campaign for Better Transport, Aviation Environment Federation, CPRE, Friends of the Earth, Transport and the Environment, Transport Action Network and Northern Transport Campaigners.