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# Summary: ‘Decarbonising Transport: A Better, Greener Britain’

22 July 2021

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## 1 Introduction

On 14 July 2021, the UK government published its long-awaited Transport Decarbonisation Plan (‘the Plan’), outlining 78 commitments and actions to deliver net zero in the transport system by 2050.

Alongside the Plan, the government also published:

- a delivery plan on the phasing out of petrol and diesel cars and vans by 2035;<sup>1</sup>
- a rail environment policy statement that outlines the policy priorities for a Sustainable Rail Strategy;<sup>2</sup>
- the outcomes from the consultation on electric vehicle smart charging.<sup>3</sup>

It also enacted two consultations:

- the ‘Jet Zero’ consultation, which aims to gather views on the government’s policies to decarbonise the aviation sector;<sup>4</sup>

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<sup>1</sup> Department for Transport and Office for Zero Emission Vehicles (2021), ‘Transitioning to zero emission cars and vans: 2035 delivery plan’, 14 July, available at: <https://www.gov.uk/government/publications/transitioning-to-zero-emission-cars-and-vans-2035-delivery-plan> (last accessed 19 July 2021).

<sup>2</sup> Department for Transport (2021), ‘Rail Environment Policy Statement: On Track for a Cleaner, Greener Railway’, 14 July, available at: <https://www.gov.uk/government/publications/environmental-sustainability-on-the-railway-stating-our-priorities> (last accessed 19 July 2021).

<sup>3</sup> HM Government (2021), ‘Electric Vehicle Smart Charging: Government Response to the 2019 Consultation on Electric Vehicle Smart Charging’, 14 July, available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1001895/electric-vehicle-smart-charging-final-outcome.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1001895/electric-vehicle-smart-charging-final-outcome.pdf) (last accessed 19 July 2021).

<sup>4</sup> Department for Transport (2021), ‘Jet zero: our strategy for net zero aviation’, 14 July, available at: <https://www.gov.uk/government/consultations/achieving-net-zero-aviation-by-2050> (last accessed 19 July 2021).

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- a consultation on the termination date of sales of new Heavy Good Vehicles (HGVs).<sup>5</sup>

This note aims to give an overview of the key announcements in the Plan.<sup>6</sup> These have been grouped into the eight categories presented in the sections below.

## 2 Zero emission buses and coaches

The government commits to:

- deliver the National Bus Strategy, increasing patronage by making services affordable, better and more frequent, and by integrating buses with other modes of transport;
- consult on the Bus Service Operators' Grant (BSOG) modernisation in 2021—the grant should be aligned with environmental priorities. For now, it has been decided to increase the rate at which the BSOG green incentive can be claimed for zero-emission buses to 22p per km;
- consult further on a phase-out date for the sale of new non-zero emission buses, and on a phase-out date for the sale of new non-zero emission coaches;
- invest up to 120m in 2021–22 in zero-emission buses and relevant infrastructure through the Zero Emission Bus Regional Areas Scheme;
- deliver the first all-electric bus town or city. The winner is Coventry!

## 3 Rail decarbonisation

The government has the **ambition** (emphasis added) for all diesel-only trains (passenger and freight) to be removed from the network by 2040. But how is this going to be achieved?

GBR will be responsible for decarbonising the rail network using Network Rail's Traction Decarbonisation Network Strategy<sup>7</sup> as a guide. GBR will also have a statutory duty to promote rail freight—the government commits to introduce a rail freight growth target.

Battery and hydrogen trains will also play a role in decarbonisation. There is much government support for R&D. For example, HydroFLEX, UK's first hydrogen-powered train, has been tested and a prototype production version is now being developed. The technology will be available by 2023 to retrofit current in-service trains to hydrogen.

The Integrated Rail Plan (to be published soon) will set out how the next phases of HS2 and Northern Powerhouse Rail will differ in order to make the

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<sup>5</sup> Department for Transport (2021), 'Heavy goods vehicles: ending the sale of new non-zero emission models', 14 July, available at: <https://www.gov.uk/government/consultations/heavy-goods-vehicles-ending-the-sale-of-new-non-zero-emission-models> (last accessed 19 July 2021).

<sup>6</sup> For more information, see 'Department for Transport (2021), 'Decarbonising Transport: A Better, Greener Britain', 14 July, available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1002285/decarbonising-transport-a-better-greener-britain.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1002285/decarbonising-transport-a-better-greener-britain.pdf) (last accessed 19 July 2021).

<sup>7</sup> Network Rail (2020), 'Traction Decarbonisation Network Strategy: Executive Summary', 31 July, available at: <https://www.networkrail.co.uk/wp-content/uploads/2020/09/Traction-Decarbonisation-Network-Strategy-Executive-Summary.pdf> (last accessed 16 July 2021).

projects deliver environmental benefits sooner. The extra network capacity will support significant shifts from road and air to rail.

This shift to rail will be also supported by increasing and improving passenger and freight services, as explained in the Williams–Shapps Review.<sup>8</sup>

## 4 Cars, vans, motorcycles and scooters

A new regulatory regime is to be introduced to support the phasing out of new diesel and petrol cars. It includes a zero-emission vehicles mandate, as recommended by the Committee on Climate Change. This requires car manufacturers to sell a specified proportion of zero-emission vehicles (ZEVs) out of their total UK sales. Manufacturers earn credits for selling ZEVs. Instead of the targets being monitored directly, manufacturers can meet their target either by earning credits through the sale of ZEVs, or from buying excess credits from manufacturers that have sold more ZEVs than what it was required.

New milestones:

- 2030: no sales of new petrol or diesel cars and vans;
- 2035: all new cars to be 100% emissions free at the tailpipe;
- 2035: all new L-category vehicles to be emissions free at the tailpipe (subject to consultation);
- 2040: no sales of new non-zero emission HGVs.

### 4.1 Electric vehicle (EV) infrastructure

The government announced that it will plan an EV Infrastructure Strategy. According to the Plan, England’s motorways and major A roads are expected to have 6,000 high-powered chargepoints installed.

However, the development of charging infrastructure will be market-led, with the government committing to a financial support package of £1.3bn over the next four years. A new Local EV Infrastructure Fund will support the rollout of larger on-street charging schemes and rapid charging hubs across England.

In line with government’s intentions for place-based solutions (see section 8), an EV Infrastructure Guide for local authorities will be published in 2021.

Finally, there is an upcoming regulation on measures to improve the consumer experience, including opening up public chargepoint data and increasing pricing transparency. The government will also mandate smart charging.

### 4.2 Roads

The government explicitly says that it will continue to invest in roads. However, it will review the National Networks National Policy Statement to reflect decarbonisation targets, and will update forecasts on which it is based to reflect new, post-pandemic travelling trends.

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<sup>8</sup> Department for Transport (2021), ‘Great British Railways: Williams-Shapps plan for rail’, 20 May, available at: <https://www.gov.uk/government/publications/great-british-railways-williams-shapps-plan-for-rail> (last accessed 19 July 2021). For some thoughts on the proposals in the Williams–Shapps review, see Oxera (2021), “‘Great’ British Railways?”, *Agenda*, 20 May, available at: <https://www.oxera.com/insights/agenda/articles/great-british-railways/> (last accessed 19 July 2021).

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The Plan touches upon the gap in the tax revenues from fuel duties by saying that we will need to ensure that revenue from motoring taxes keeps pace with the mass uptake of EVs and other technological developments influencing modal choice such as the introduction of autonomous vehicles.

The government also commits to increased average road occupancy by 2030. And finally, in tackling emissions from last-mile deliveries, the government will research the legal and practical issues around compulsory consolidation centres, setting the groundwork for future pilots. Pilots will seek to ensure that the majority of urban deliveries are consolidated and transferred to zero-emission vehicles for the last mile.

## 5 Aviation

The sixth carbon budget in 2033 will include international aviation and shipping emissions. When these emissions are included in the emissions projections, there are positive remaining emissions in 2050 (i.e. missing net zero). The government maintains that there are considerable uncertainties, and therefore a wide range between high and low Aviation greenhouse gas projections by 2050, and the low forecast is based on 'speculative scenarios'. Therefore, the rest of the emissions should be offset.

Key commitments include to:

- publish the Jet Zero Strategy with further details on government plans to decarbonise aviation;
- review the aviation sector's free allocation of allowances in the ETS, and to expand the pollutants covered;
- consult on a target for UK domestic aviation to reach net zero by 2040, and on a target for decarbonising emissions from airport operations in England by 2040;
- agree on long-term global emissions reduction goals in 2022 in the International Civil Aviation Organisation;
- implement the offsetting provisions for CORSIA (Carbon Offsetting and Reduction Scheme for International Aviation) by April 2022;
- consult, in 2021, on a UK sustainable aviation fuels (SAF) mandate to blend greener fuels into kerosene. The government also commits to support the commercialisation of UK SAF. In 2025, the supply or use of SAF will be mandated.

The plan also describes the commitment to support and fund the development of zero-carbon aircraft technology and infrastructure.

## 6 Maritime

- Following consultation in 2022, the government will review the Clean Maritime Plan to include a 'Course to Zero' pathway with indicative targets from 2030 and net zero as early as possible.
  - In the same year, the government will consult on a phase-out date for the sale of non-zero emission domestic vessels.
  - In 2021, another consultation will clarify how the government can support and perhaps mandate the deployment of shore power.
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- In 2023, the government says it will press for greater ambition in the International Maritime Organisation's Initial Greenhouse Gas Strategy.
  - The government will review—and amend if needed—the measurement approach to the UK's international shipping emissions.
  - The Renewable Transport Fuel Obligation will be extended to support renewable fuels of non-biological origin used in shipping.
  - The government commits to further assess economic measures to accelerate the decarbonisation of the domestic maritime sector. At the same time, a new body within DfT, the UK Shipping Office for Reducing Emissions, will consider how to accelerate the development of technology and infrastructure in the UK.

## **7 Accelerate modal shift to public and active transport**

There are two key commitments set by the government regarding cycling and walking.

- Half of all journeys in towns/cities are to be cycled or walked by 2030. The government will invest £2bn over the next five years to achieve this.
- England will have a world-class cycling and walking network by 2040.

These goals will be achieved through the 33 commitments in the government's 'Gear Change' report. For example, the government will start its pilot programme to transform a city to a zero-emission transport city with changes affecting all modes of transport, even vans for last-mile deliveries.

The government recognises that behavioural change is vital and it plans to explore the feasibility of a travel reward scheme that will utilise peer-driven motivation to encourage the use of sustainable transportation. This would be app-based.

## **8 Place-based solutions to emissions reductions**

- More power will be given to local authorities to make decisions on mobility.
  - Local Transport Plans will need to quantify carbon reductions from future mobility plans, in line with carbon budgets and net zero.
  - A Local Authority Toolkit will be published in 2021, which will include measures such as demand-responsive transport, charging schemes (e.g. congestion charging), shared car ownership, and shared-occupancy schemes and services.
  - Transport decarbonisation principles will be embedded in spatial planning and throughout transport policymaking.
  - The government will complete a review of how to best incorporate decarbonisation measures in transport business cases and appraisals. The current approach to carbon valuation is under review in light of recent changes in the UK's greenhouse gas emissions reduction targets—BEIS is to publish new values. Transport Appraisal Guidance will be reviewed to reflect the enhanced assessment of carbon that projects are required to undertake, which includes consideration of capital (embedded) carbon.
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## 9 What additional actions to expect

We can expect the following:

- the next **Transport Decarbonisation Plan**—in the current plan, land transport reaches zero emissions by 2050, driven by a ‘**natural** decline in petrol and diesel vehicle use as those markets, and associated infrastructure provision, decline over time’. The government recognises that for emissions to be actually net zero, additional measures may need to be added to this plan. Therefore, there will be another decarbonisation plan in five years;
  - a **Sustainable Rail Strategy**—this has been commissioned;
  - the **Hydrogen Strategy**—this will be published in 2021;
  - the **Low Carbon Fuels Strategy**—this is due in 2021;
  - a **Transport Data Strategy**—this is intended to reduce the barriers to data sharing across the transport sector;
  - an upcoming ‘**Future of Transport: rural strategy**’ report—this will explore, for instance, whether lift sharing can help decarbonise transport in rural areas;
  - the **Renewable Transport Fuels Obligation**—this will be increased from 9.6% in 2021 to 14.6% in 2032;
  - the standard use of petrol with up to 10% ethanol from September 2021;
  - the UK government’s fleet to be 100% emissions free by 2027;
  - a new Action Plan in 2021 on how to build new opportunities for zero-emission light-powered vehicles;
  - an update of **Areas of Research Interest** and publication of a new **DfT Science Plan** by summer 2021. The government’s R&D investments will be prioritised around transport modes for which there are currently no clear technology or deployment pathways (e.g. aviation).
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