

DECARBONISING TRANSPORT: A BETTER GREENER BRITAIN

A FRAIKIN EXECUTIVE SUMMARY

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INTRODUCTION

In July 2021, the government published *Decarbonising Transport: A Better Greener Britain*, laying out in a 200-page document its plan for decarbonising our transport systems by 2050. In the foreword to the document, The Rt Hon Grant Shapps MP, Secretary of State for Transport says, “It’s not about stopping people doing things: it’s about doing the same things differently”.

Inevitably, the document covers a wide range of subject matter, but for the purposes of this summary we will focus on the plans to remove carbon dioxide (CO₂) emissions from road transport.

“We have also published our consultation on ending the sale of all non-zero emission HGVs from 2040, with lighter HGVs from 2035,” continues Shapps, “I can also commit to consulting on setting phase out dates



for all non-zero emission road vehicles, with 2040 as a backstop, setting a path to a time when every vehicle on the roads will be zero emission.”

There is no doubt that it will be a challenging task, but from a road transport perspective, one that is in step with the European truck manufacturers who have already agreed that all new trucks sold must be fossil-free by 2040 if the sector is to be fully carbon-neutral by 2050.

POINTS OF INTEREST IN DECARBONISING TRANSPORT

Even though much of the content of the plan has been seen before, there are a number of points that are of interest to those in the transport sector.

- The government will stimulate demand for zero emission trucks using a package of financial and non-financial incentives.
- The government will support efficiency improvements and emissions reductions in the existing fleet.
- The government will support and encourage modal shift of freight from road to more sustainable alternatives such as rail, cargo bike and inland waterways.
- It will consult on a Mobility as a Service (MAAS) code of practice.
- The government will reduce the barriers to data sharing across the transport sector.
- It will publish a Future of Transport: Rural Strategy.
- The government will publish a Local Authority Toolkit in 2021, offering sustainable transport guidance.
- It will embed transport decarbonisation principles in spatial planning and across transport policy making.
- The government will create at least one zero-emission transport city and four industrial “Super Places”
- It will develop a strategy for low carbon fuels, from now until 2050.
- The government will explore the role of hydrogen in a decarbonised transport system, publishing a strategy in late 2021.

The report lays out the government’s view of the path to zero emissions transport in Part 1, with the detailed plan of action and timings in Part 2.

PART 1: LAYING THE PATH

The points of interest to be found in Part 1 include the recent consultation – which closed in early September 2021 – regarding the ending of the sale of CO₂-emitting vehicles. It lays out the Government’s overall plan to end the sale of new CO₂-emitting commercial vehicles between 3.5-tonnes and 26-tonnes gross vehicle weight (GVW) by 2035. New heavier CO₂-emitting HGVs would then be included in the ban from 2040.

This would be supported by a CO₂ emissions regulatory framework for road vehicles, the details of which can be found in the this green paper: <https://bit.ly/2XpqZN6>

Reductions in carbon dioxide emissions between 2020 and 2050 could reach between an estimated 1,300Mt (metric tonnes) and 1,800Mt. The process

of decarbonisation could create some 72,000 jobs, worth up to £9.7bn gross value added (GVA) by 2050, according to the report.

The report identifies six main priorities:

1. Accelerating modal shift to public and active transport

Further exploit the move towards walking and cycling seen since the Covid-19 pandemic, backed up with better quality infrastructure.

2. Decarbonising road transport

Phase out new CO₂-emitting vehicles as above, with the report promising “an extensive network of charging and refuelling infrastructure to enable the transition.”

3. Decarbonising how we get our goods

Decarbonisation will include introducing new zero emission technologies, including the use of hydrogen. The report expects this to be accompanied by a shift to zero carbon modes of transport, expecting that “Last Mile” deliveries will mostly be decarbonised through new delivery models.

4. Place-based solutions to emissions reductions

The report promises “place-based” solutions to reduce emissions, pledging that by 2050 every place in the UK will have its own net zero transport network.

5. The UK as a hub for green transport technology and innovation

The government’s vision includes the UK becoming a hub for green transport technology and innovation. The development of Mobility as a Service solution could drive a shift to multi-modal transport systems.

6. Reducing carbon in a global economy

The next transport decarbonisation plan will be published within five years to ensure continued progress to net zero by 2050.



PART 2: COMMITMENTS, ACTIONS AND TIMINGS FOR ROAD TRANSPORT

ZERO-EMISSION BUSES AND COACHES

Introducing zero-emission buses would help to take cars off the roads. The government will support the delivery of 4,000 new zero-emission buses and supporting infrastructure. Smaller demand-responsive buses may be introduced in lower density/rural areas.

Coventry will become the first all-electric bus city. The West Midlands Combined Authority has been awarded £50m to replace the entire Coventry bus fleet with up to 300 electric buses and supporting infrastructure. An appropriate date to phase out the sale of new CO₂-emitting buses is currently under consultation. A similar consultation on coaches will be dealt with in due course.



DELIVERING A ZERO-EMISSION FREIGHT AND LOGISTICS SECTOR

16% of domestic greenhouse gas emissions in 2019 came from HGVs.

200Mt to 220Mt of CO₂ emissions savings could be made between 2020 and 2050, providing up to £600 million in air quality benefits.

Government is considering its wider approach to the freight sector through its Future of Freight programme. The strategy will describe its long-term vision for the sector across a range of indicators, including decarbonisation, and provide a policy route map to achieve that vision, taking forward work on the strategy throughout 2021.

The Green Paper on a New Road Vehicle CO₂ Emissions Regulatory Framework mapped the phase out dates to ensure emissions reductions from conventional vehicles in the timeframe.

The government is investing £20 million this year to support the development of zero-emission HGVs and fuelling infrastructure, designing electric road systems and hydrogen fuel cell trials, developing new technology and UK supply chains, and providing funding to demonstrate that battery electric trucks are included in this expenditure.

A fund of £582 million has been pledged for plug-in vehicle grants until 2022-23, which includes plug-in trucks. For trucks, the grant rate is set at 20% of purchase price for eligible vehicles.

Part of the HGV phase-out consultation included a discussion on whether to increase maximum vehicle weights for zero-emission trucks to offset the weight of batteries and other equipment that would be required.

Government will continue to use a range of measures to cut emissions from the existing HGV fleet. These include:

- Using the Energy Savings Trust's online Freight Portal to demonstrate the commercial benefits of improved fuel and logistics efficiencies.
- Building on the work of Zemo Partnership and others in identifying zero-emissions solutions for transport refrigeration units and auxiliary power units and their potential development.
- The Renewable Transport Fuel Obligation will continue to support the use of sustainable low carbon fuels in road vehicles. This will include exploring the potential for higher bio-content fuel blends for use in compatible vehicles.
- The fuel duty differential will be maintained up to 2032, subject to review in 2024. This is to encourage the use of biomethane and other gaseous fuels that could generate carbon emissions savings compared with fossil fuels.

The government will support and encourage the modal shift of freight from road to rail, cargo bike and inland waterways. This will be supported by a package of policies including:

- Investing in freight capacity and capability on the rail network, including projects such as upgrading the freight corridor between Southampton and the Midlands, as well as HS2.
- The Mode Shift Revenue Support and Waterborne Freight Grant Schemes.
- Introducing a rail freight growth target to encourage the continued growth of this sector.
- The 'last mile' package of measures which will support more sustainable freight alternatives in urban areas.

The government has also expressed a commitment to developing "last mile" deliveries. These policies include:

- Working with industry, academia and other stakeholders to understand how innovation of two and three wheeled vehicles and quadricycles can benefit the UK delivery market.
- Reviewing the Traffic Regulation Order legislative framework and consulting on improvements that could deliver near-term carbon savings by reducing the number of vehicle movements.
- Researching the legal and practical issues around compulsory consolidation centres, setting the groundwork for future pilots.
- Allow some local authorities to franchise certain delivery and waste management services as a pilot study. The plan would be to reduce duplicate trips and services from competing suppliers.

DELIVERING DECARBONISATION THROUGH PLACES

The government will invest £12 billion in local transport decarbonisation over the current parliament. This will include funding for the City Region Sustainable Transport Settlements, a £4.2 billion investment in the transport networks of eight city regions across England starting in 2022-23.

In 2021, this will also include a local authority toolkit to provide guidance and support for local areas to deliver more sustainable transport measures. At least one zero transport emission city and four industrial “Super Places” will also be established, aimed at uniting clean industry with transport and power.



MAXIMISING THE BENEFITS OF SUSTAINABLE LOW CARBON FUELS

Low carbon fuels accounted for approximately 5% of total UK fuels by volume in 2019. Two-thirds were produced from waste materials.

Supplies are limited and use should be prioritised for sectors such as aviation. In the short term, these fuels will continue to be available for all road transport to help reduce emissions. The medium-term need is likely to be for long-haul HGV operations, with increasing demand from aviation and shipping.

The government sees a genuine strategic opportunity for the UK to become a leading producer of low carbon fuels including hydrogen.

It has published a response to a recent consultation, setting out plans to increase the Renewable Transport Fuels

Obligation (RTFO) main obligation by five percentage points, from 9.6% in 2021 to 14.6% in 2032. An estimate puts the additional carbon savings at up to 20.8Mt CO₂ over this time. The government has committed to implementing other proposals from the consultation, including updating the sustainability criteria and making recycled carbon fuels (RCFs) produced from waste materials eligible for incentives. Renewable fuels of non-biological origin used in non-road applications will also receive support.

A longer-term strategy for low carbon fuels will also be published in 2022, considering how carbon savings could be sustainably maximised, while making the most of new fuels and technologies. The strategy will set out the likely transition from road to other transport sectors.



HYDROGEN'S ROLE IN A DECARBONISED SYSTEM

Hydrogen is currently incentivised under the RTFO and the Government has since published its hydrogen strategy: <https://bit.ly/3tHDZte>

As Decarbonising Transport recognises, hydrogen has a role to play where battery range is restrictive, energy density requirements, duty cycles, weight, volume restrictions and refuelling times make it the most suitable green energy source.

The first multi-modal hydrogen transport hub was established 2020 in the Tees Valley. £3 million

of funding in 2021 will help develop the fuel's potential. Government, academia and industry will collaborate on research, development and testing.

The Holyhead Hydrogen Hub is being established as a pilot plant on Anglesey in north Wales to support maritime and HGV decarbonisation. Initially, the plant is expected to produce 400kg of hydrogen per day, before scaling up and expanding into "green" hydrogen. The UK Government will provide £4.8 million in support funding.

SUPPORTING UK RESEARCH AND DEVELOPMENT AS A DECARBONISATION ENABLER

The government's Transport Research and Innovation Board (TRIB) will be the point of co-ordination for transport research and development. It brings together the leaders of major R&D funders in the sector.

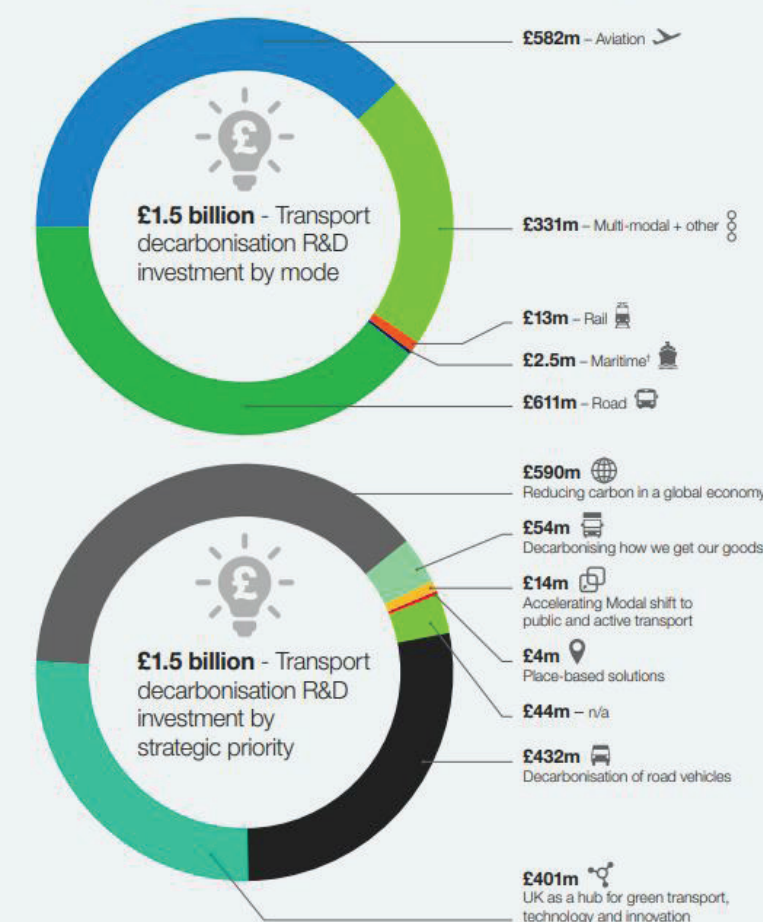
Consultants Mott MacDonald were commissioned to produce seven roadmaps which considered the progress of technologies that could reduce and remove direct emissions from the UK's domestic transport sector by 2050. The company also recommended the research and innovation needed in the next five to 10 years.

The government will update its Areas of Research Interest (ARIs) and has recently published its new DfT Science Plan: <https://bit.ly/3Ek8Scd>

Private and government finance will be key to ensuring the progress of transport decarbonisation. The government's Infrastructure Bank will play a part in this through its work to tackle climate change. The Government will also issue its first green gilts and NS&I retail Green Savings Bonds under the Green Financing Framework published on 30 June. The government will also work with the Green Finance Institute, with funding from the UK government and City of London Corporation.

Current public investment in R&D for transport decarbonisation

Assessment undertaken by the Transport Research and Innovation Board (TRIB)





This executive summary aims at highlighting key aspects of the Government's Decarbonising Transport: A Better Greener Britain, as published in July 2021. However, this summary is for information purposes only and we do not make any warranty or representation on the completeness, correctness, accurateness, adequacy, usefulness or reliability of such information. Therefore, neither Fraikin, nor any of its affiliates, will accept any liability whatsoever based on any information provided in this document, or any use of or reliability on any such information.

Fraikin Ltd.

First Floor, 2M
Middlemarch Business Park
Siskin Drive
Coventry
CV3 4FJ

 0800 052 44 55

 talk-to-us@fraikin.co.uk

 @fraikin_uk

 Fraikin Ltd