

Report to: Climate, Energy and Environment Committee

Date: 22 March 2022

Subject: **Transport Decarbonisation Update**

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Is this a key decision?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Is the decision eligible for call-in by Scrutiny?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Does the report contain confidential or exempt information or appendices?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If relevant, state paragraph number of Schedule 12A, Local Government Act 1972, Part 1:	
Are there implications for equality and diversity?	<input type="checkbox"/> Yes <input type="checkbox"/> No

1. Purpose of this report

1.1 To provide an update to the Committee on selected transport decarbonisation activity¹.

2. Information

West Yorkshire Climate and Environment Plan

2.1. The Combined Authority declared a climate emergency and committed to strengthen the West Yorkshire emission reduction target in June 2019. The Combined Authority's target is to be net zero carbon by 2038 at the latest, with significant progress by 2030. The task is extremely challenging and will require significant, swift, and collaborative action to decarbonise all sectors.

2.2 Figure 1 below sets out the current split of emissions across West Yorkshire. It clearly shows transport as the highest emitting sector in the region, accounting for 44% of all CO₂ emitted in the region. It also shows that emissions are dominated by road transport which accounts for 89% of transport related emissions in West Yorkshire.

¹ The information contained and collated within this report first appeared across several reports presented to the 4 March 2022 Transport Committee meeting.

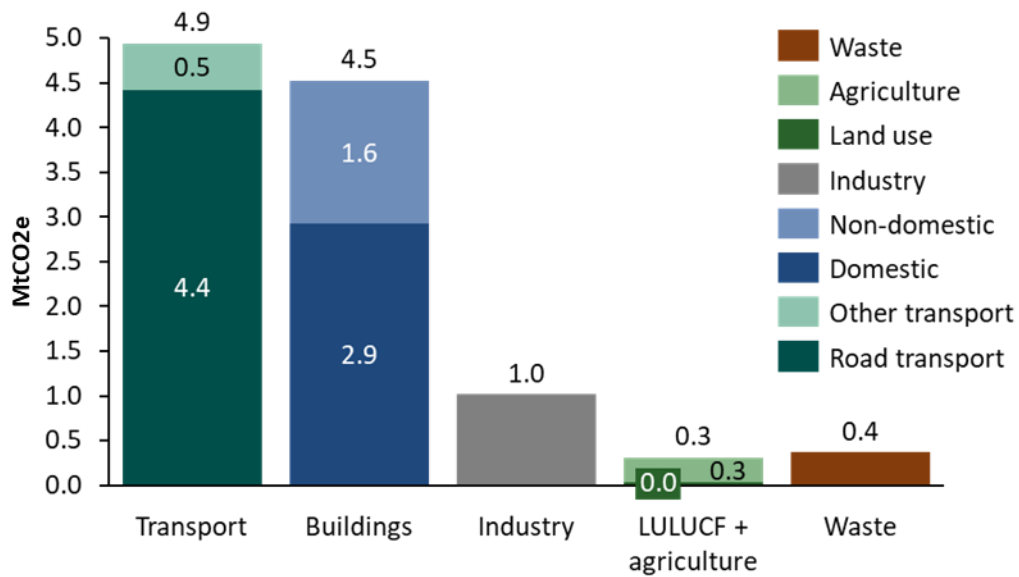


Figure 1. West Yorkshire CO₂ emissions

2.3 From a road transport perspective Figure 2 demonstrates cars and vans fuelled by petrol and diesel are the largest contributors to emissions, with 76% of road transport emissions being generated from these sources.

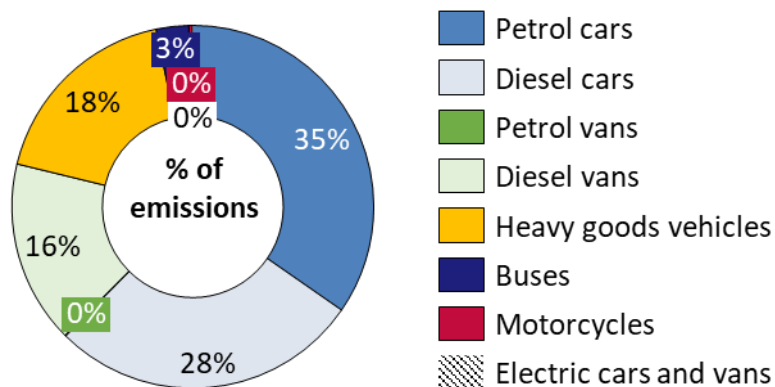


Figure 2. Road transport emissions by vehicle and fuel type

2.4 To achieve the scale of reductions that will be required for the transport sector to reduce its emissions in line with the regional target it will be necessary to:

- be more flexible in working patterns e.g. home working and teleconferencing;
- undertake a greater number of shorter journeys via walking and cycling rather than by private car;
- transition significant numbers of private car journeys to public transport modes; and
- embrace alternatively fuelled vehicles such as battery electric or fuel cells.

2.5 The information highlighted in Figures 1 and 2 provides a clear rationale for the approach that has been taken to the decarbonisation of transport set out in the published [West Yorkshire Climate and Environment Plan 2021-2024](#) which:

- focusses on the delivery of infrastructure that facilitates increases in patronage across public transport and enables increases in walking and cycling;
- considers mechanisms that reallocate road space for public transport and introducing highways demand management to help reduce car trips;
- provides the infrastructure that allows residents and businesses to make the transition to cleaner fuels and cleaner journeys; and
- reprioritises infrastructure in the regions' communities to favour walking, cycling and high-quality green and climate ready public realm.

2.6 The following sections illustrate some of the transport schemes which are currently being progressed which will contribute to the delivery of the Climate and Environment Plan and achieving the regional emission reduction target.

Zero Emission Buses

2.7 While buses are already one of the greenest forms of transport – contributing only three per cent of the UK's domestic transport emissions – accelerating the roll-out of ZEBs will drive further improvements to air quality and emissions across our region.

2.8 The Combined Authority is committed to introducing zero-emission buses across West Yorkshire to drive down harmful emissions. These efforts include utilising the £4m allocated funding from the [Transforming Cities Fund](#) to introduce 8 zero-emission buses on routes in Kirklees and Calderdale, and the [City Region Sustainable Transport Settlement \(CRSTS\)](#) which is a minimum £21m project to introduce ZEBs and associated infrastructure.

2.9 On 31st January 2022, The Combined Authority submitted its £23m bid to the [Zero Emissions Bus Regional Area \(ZEBRA\) fund](#), which if successful, will deliver 47 double-decker buses for Arriva, 32 single-decker buses for First and 32 single-decker buses for Transdev across Bradford, Wakefield, and Leeds. The bid could make a significant contribution towards our regional net-zero carbon by 2038 goal, by increasing the percentage of the zero-emission fleet from 2% to 10% and removing 50 tonnes of NOx/year.

2.10 Within West Yorkshire there is a link between deprivation and air quality, with areas experiencing high levels of deprivation often also being those adversely affected by poor air quality. Most of the routes selected across this programme serve areas of multiple deprivation that experience disproportionate inequalities in health, income, and air quality. Thus, our investment in zero emission buses seeks to address the link between poor air quality and social deprivation through the introduction of cleaner buses that address both carbon emissions and its effects on spatial inequalities.

- 2.11 Currently, only 1% of buses operating in West Yorkshire are zero emission buses, but as a result of this programme we hope to grow this number significantly, leading to between 14% and 19% of the West Yorkshire bus fleet being zero emission – figures that equate to between 179 and 245 zero emission buses being in service across the region. This is in line with our [Bus Service Improvement Plan](#) commitment to have a carbon-zero bus fleet by 2036.

Electric Vehicles

- 2.12 The Combined Authority has scoped out a set of themes regarding Electric Vehicles (EV) to be explored, and we will lead a West Yorkshire wide task group to consider these points and work them up into an EV charging strategy with our partner councils. The Combined Authority will be running this with District Partners. This strategy will consider procurement approaches, market engagement, technology, delivery best practice and will build on the evidence base we have from the Arcadis lead demand study.

Walking and Cycling

- 2.13 The Combined Authority continues to develop our [Local Cycling and Walking Infrastructure Plans](#) to provide a pipeline of schemes to enable the step change in infrastructure quality required. This will not only link together our locations and settlements with high quality protected or traffic-free routes but also enable them to be integrated into the communities they serve through feeder routes and point closures to motor traffic, providing safe access to the network from across West Yorkshire. We continue to await feedback from DfT on our schemes submitted in August 2021 for the [Active Travel Fund: Local Authority Funding 2021-2022](#) funding award, but our submission has already provided for a range of interventions across all five districts, serving a range of high-profile locations such as railway stations, schools, and hospitals.

Rail Decarbonisation

- 2.14 In considering how rail can help achieve decarbonisation, we have developed a set of high-level principles for rail as part of the development of a West Yorkshire-wide Rail Strategy. We are calling for a rolling programme of electrification across the City Region rail network which reduces the long-term costs of operating the railway, allows the efficient operation of high frequency services, and provides rail infrastructure which is suitable for a low carbon future. In addition, electrification of existing and new rail freight depots will enable the region to fast track the decarbonisation of its logistics networks and supply chains.
- 2.15 As part of the development of the West Yorkshire Rail Strategy we will continue to undertake analytical work to support our own vision for the railway, but also to show that to fully realise the modal shift to rail required to support decarbonisation, the infrastructure and investment required in West Yorkshire will need to be much higher than currently proposed in the Integrated Rail Plan.

Transport for the North Transport Decarbonisation Strategy

2.16 In December 2021, Transport for the North (TfN) launched the first regional [Transport Decarbonisation Strategy](#), outlining the ambitious target of near-zero carbon emissions from surface transport by 2045. It is the first time a regional strategy of this type has been produced, bringing together the region's leaders to speak out with one voice on the climate emergency and how the transport sector must act to address the challenge.

2.17 The wider action plan within the strategy covers:

- Encouraging modal shift towards more sustainable ways of travelling, such as public transport and active travel
- Zero emission vehicles, including cars, HGVs, and buses, with a comprehensive network of charging facilities to support their wider use.
- The decarbonisation of the rail network through electrification
- The use of hydrogen and alternative fuel vehicles
- Opportunities for decarbonisation in the freight industry
- Reducing the embodied carbon within new transport infrastructure development.

2.18 The Decarbonisation Strategy sets out a measurable, evidence-based and time-bound Decarbonisation Trajectory, which starts at 'where we are now' and travels towards alignment with the objectives of the Paris Agreement. The shape of the curve is dictated by a series of interim emissions reduction milestones that ensure a rate of progress aligned to the Climate Change Committee's Carbon Budget as a minimum.

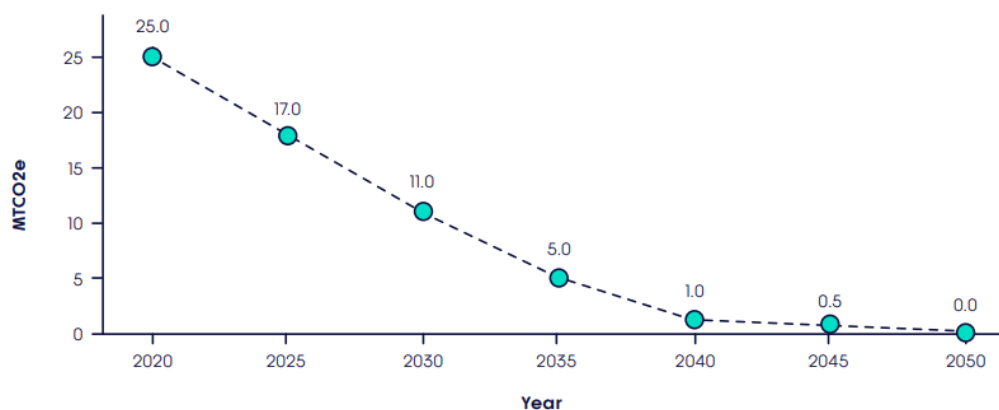


Figure 2: TfN's Decarbonisation Trajectory

2.19 The Decarbonisation Trajectory headlines include:

- A 56% reduction in emissions from 2018 to 2030, achieved mostly through mode-shift and demand reduction
- A 96% reduction in emissions from 2018 to 2040, reflecting longer-term decarbonisation measures, such as a high proportion of zero-emissions vehicles in the vehicles fleet

- A close to zero date of 2045 for carbon emissions from surface transport in the North.
 - A national carbon budget of approximately 290 mega-tonnes of CO₂ from 2018 to 2050.
- 2.20 The strategy lays out the North's minimum expectations in relation to both local and national decarbonisation policy ambitions and is intended to provide an overarching framework for local partners across the region to meet their decarbonisation responsibilities and ambitions through a coordinated effort.
- 2.21 This work also highlights the strength of TfN's analytical capability, helping identify priority areas for electric vehicle charging points and making sure carbon impacts are properly considered in investment planning. It also utilises TfN's Future Travel Scenarios to ensure it is futureproofed for a diverse range of possible scenarios.
- 2.22 The Combined Authority supports the recommendations made within the Strategy as it provides a strong context for us to achieve our net zero ambitions across West Yorkshire.

Next Steps

- 2.23 While the interventions highlighted in this report make good progress, a scaling up of activity across all stakeholders will be required to meet the regional ambition and deliver against the activity highlighted in the Climate and Environment Plan.
- 2.24 As an organisation the Combined Authority recognises the scale of the challenge and the resources that will be needed to decarbonise transport. With this in mind the organisation is reviewing its current capacity to work on this area. It also recognises that it can't achieve the change needed alone. District partners are already taking action through their own local transport priorities.

3. Tackling the Climate Emergency Implications

- 3.1 All the activity outlined in this report is contributing to addressing the climate and environmental emergency and achieving a net zero carbon economy by 2038.

4. Inclusive Growth Implications

- 4.1 In our transition to a net zero carbon economy there are important considerations to be made to ensure that decarbonisation does not reinforce existing social inequalities but rather enhances social equity for the residents of our region.
- 4.2. Too often social sustainability and environmental sustainability have been perceived and remedied as two separate issues, but the Combined Authority is committed to ensuring that our future is not only greener but also more just.

Our policies and strategies place inclusive growth at their core, addressing the interconnected nature of decarbonisation and deprivation to ensure that the actions and solutions outlined in this report leave no one behind.

5. Equality and Diversity Implications

- 5.1 Meeting net zero carbon and transitioning to a net zero carbon economy should be equitable and not be at the expense of any groups or communities. To that extent, equality and diversity implications and solutions will be cross-cutting and integrated across the activity outlined in this report to ensure no one is adversely affected.
- 5.2. The principles of inclusivity, diversity and equality are incorporated in all policy areas, with each scheme being subject to an Equality Impact Assessment, and this will continue to be a major theme for future transport decarbonisation strategy development.

6. Financial Implications

- 6.1 There are no financial implications directly arising from this report.

7. Legal Implications

- 7.1 There are no legal implications directly arising from this report.

8. Staffing Implications

- 8.1 There are no staffing implications directly arising from this report.

9. External Consultees

- 9.1 Various external consultees have provided input into the activity documented in this report. Their views have been taken on board and integrated into the activity where applicable.

10. Recommendations

- 10.1 That the Climate, Energy and Environment Committee note the contents of this report.

11. Background Documents

- 11.1 The Combined Authority has submitted its ZEBRA bid, a summary can be found here: [Combined Authority Bids For New Zero-Emissions Bus Fleet - West Yorkshire Combined Authority \(westyorks-ca.gov.uk\)](https://www.westyorks-ca.gov.uk/combined-authority-bids-for-new-zero-emissions-bus-fleet) [link to FBC doc when published]
- 11.2 Transport for the North has published its Transport Decarbonisation Strategy, which can be found here: [TfN-Transport-Decarbonisation-Strategy-TfNDEC2021.pdf \(transportforthenorth.com\)](https://www.transportforthenorth.com/TfNDEC2021.pdf).

12. Appendices

None.