

Appendix 3. Summary of stakeholder feedback

Feedback summary	Response
<p>There is a need for a stronger recognition of the impact on emissions from aviation, including both domestic and international flights. It was considered that the scenarios could be strengthened to take account of the likely future impact of plans to increase passenger numbers at Leeds Bradford Airport.</p>	<p>As a result of this comment current emissions from the airport have been estimated as part of the work.</p> <p>The final report will include narrative on the impact of aviation.</p> <p>Policy recommendations will be developed that seek to address emissions from the airport.</p>
<p>When communicating the outputs of the work, the assumptions that have been used in the modelling need to be made available to stakeholders for transparency.</p>	<p>As a result of this comment assumptions have and will be made available to stakeholders when communicating the outputs of the work.</p>
<p>Not all activities e.g. embedded emissions from goods and services consumed, related to the generation of emissions are within the scope of this study. Where activities are outside of scope Members were keen to ensure the opportunity to address them was not missed as part of developing policy recommendations.</p>	<p>The future work of the Combined Authority may consider how best to reduce emissions from activities not covered by this study.</p>
<p>There was an interest in being able to model the complex journeys which residents can undertake to enable suitable policy recommendations to be developed.</p>	<p>Every effort has been made to ensure the outputs of the study are representative of the Leeds City Region. However, detailed granular modelling is outside of the scope of the study. As such modelling of complex resident journeys will need to occur as part of future work to implement the recommendations of the study.</p>
<p>Requirement to consult initially with a small group of known, interested stakeholders, on the scenario framework and assumptions. Members recognised this would necessarily need</p>	<p>As a result of this comment a small group of stakeholders have been engaged including Leeds Institute for Transport</p>

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to be undertaken quickly to work within the timeframes of the study.	Studies, Leeds Living Streets, Friends of the Earth, Leeds Climate Commission and the DecarboN8 programme.
There is a need to integrate the study with the West Yorkshire Low Emission Strategy (WYLES) work on the improvement of air quality to avoid duplication of effort and dilution of messaging.	As a result of this comment there will be closer alignment between the emissions reduction pathways work and the WYLES going forward. This includes engaging, on a regular basis, with the steering group overseeing the WYLES and an inclusion of a representative of WYLES on the project steering group.
The use of net-zero is confusing. What does this mean in relation to the levels of ambition – is it simply that remaining emissions will be offset / sequestered? If so, this is challenging, especially for 2030 as there are not credible technologies currently able to deliver the likely remaining emissions by then.	<p>For the purpose of this commission net-zero is taken to be the point at which 95 percent of the region's emissions have been reduced. The remaining residual emissions will be reduced over the period to 2100.</p> <p>In the context of the pathways the 95 percent reduction is across all sectors. This infers that if one or more of the sectors cannot reach net-zero the emission savings could be picked up by other sectors which are able to meet and go beyond net-zero.</p>
Clarity is needed on how emissions which originate from outside or pass through the region are treated. Similarly, how are emissions from people living in the region and travelling outside it dealt with? Transparency is required in relation to this issue.	<p>The commission considers emissions due to vehicle activity occurring within the region. For journeys that begin in the region but end outside, only the portion that is carried out within the region (up to the region boundary) is included.</p> <p>Similarly, for journeys beginning outside the region only the portion of the journey that occurs in the region is included. Resident travel outside of the region is not included.</p>
It is difficult to see how 2030 ambitions of 50 percent reductions in car use can be brought about. Given this is the level of	We have reviewed the ambition with our consultants and there is a general agreement that the levels of behaviour change

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<p>ambition credible? Does not appear so given the interventions being considered as part of the study.</p>	<p>modelled in the work will be highly ambitious but, given the limit in supply of low carbon technology, it is the type of ambition that is required to achieve significant emissions reductions.</p> <p>The analysis of modal shift potential in this study considers trip characteristics (trip lengths and destination types) and therefore reflects the level of change that is considered feasible if enough infrastructure is provided to support it. The specific interventions and investment required to achieve this will be evaluated in a later stage of the project.</p>
<p>It is already too late to assume the vehicle fleet could be 100 percent electric. As a result, a large amount of emissions will remain from conventionally fuelled vehicles affecting the ability to reach net-zero.</p>	<p>We agree with this comment and the mode and technology mixes developed for the pathways take this into account and some conventionally fuelled vehicles remain in 2030 and 2038.</p>
<p>What is trying to be achieved by the pathways is not obvious from their names. Max Ambition 2030 looks like an envelope setting scenario. High Hydrogen 2038 and Balanced 2038 suggest a tendency towards Balanced. Balanced is not so in any other sense other than technology, suggest Technology Blend is a better name.</p>	<p>We will consider changing the names of the pathways to better reflect their context.</p>
<p>Lack of an obvious mode shift option for domestic aviation from Leeds Bradford Airport. Perhaps limiting growth to current capacity might be an option.</p>	<p>We acknowledge that decarbonising aviation will be a challenge and doing so within the timeframes set out in this commission will be driven more by policy / behaviour change rather than technology. Issue is to be discussed in more detail as part of developing the policy recommendations and action plan.</p>

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<p>Under scope of emissions we would urge the full lifetime scoping of emissions from hydrogen production. The scope also needs to recognise the incomplete nature of carbon capture and storage processes and factor in emissions from air.</p>	<p>We can confirm that production efficiencies and carbon capture and storage capture rates are being included in the modelling and the assumptions will be summarised to enable validation to occur.</p> <p>For transport, the impact is relatively small compared with the carbon intensity of electricity, due to the relative consumption of the fuels, however this will still be a factor in a net-zero world.</p>
<p>Recent work has indicated that total aviation emissions associated with an area / region's population can be quantified and then assigned to a regional carbon budget. The Combined Authority should include international aviation emissions within the regional carbon budget and pathways and use their powers and resources to reduce these emissions.</p>	<p>As a result of this comment we have calculated and included current emissions from both domestic and international aviation at Leeds Bradford Airport.</p> <p>Aviation is not included in the pathways. This is due to a lack of technology options to decarbonise within the timeframes considered as part of the commission. However, aviation and policy measures to reduce its emissions will be discussed when developing the policy recommendations that accompany the pathways.</p>
<p>Given the current policy targets are leading us to a 4°C hotter world would suggest that the Max Ambition scenario is Min Ambition. In this context would also suggest the Hydrogen 2038 and Balanced 2038 scenarios are not relevant.</p>	<p>We have reviewed this comment and have concluded that as the pathways being developed as part of this commission are based on the most up to date research and draw on evidence developed as part of the Committee on Climate Change's Net Zero Report they are suitable for the commission. As a result, there is a consensus that the pathways are considered credible.</p>
<p>Need to be wary of high-tech solutions, especially around electric vehicles. The real potential in terms of modal shifts and</p>	<p>We agree with this comment and the outputs of the pathways identify walking and cycling are both key measures that are identified. Emerging findings suggest a significant increase in</p>

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value for money is in walking and cycling infrastructure, especially supported by e-bikes.	walking and cycling will be required to meet the regional ambitions.
To achieve 50 percent modal shift away from cars the region needs to get to a position, in the next 12 months through workplace parking levy, congestion charging and ultralow emission zones, that facilitates improved bus times on major transport corridors.	There will be the opportunity to discuss policy measures like these in the development of policy recommendations that will occur later in the commission. This current work is in relation to the development of measures that could achieve regional targets and not the mechanisms that will enable them to occur.
A reimagined bus service, around free, fully electric and ultimately public or employee owned service is required. The steppingstone to that is complete re-franchising of the bus service across West Yorkshire and uniform ticketing services.	There will be the opportunity to discuss policy measures like these in the development of policy recommendations that will occur later in the commission. This current work is in relation to the development of measures that could achieve regional targets and not the mechanisms that will enable them to occur.
Emissions from Leeds Bradford Airport account for about 1.5 MtCO ₂ and they are likely to increase to 2 / 2.5 MtCO ₂ by the mid-2020s under the airport's expansion plans. Suggest that airport emissions are shared across the region, so everybody takes responsibility and ownership of constraining growth.	We have adopted the approach advocated in this comment. We have as part of the commission calculated the current emissions from both domestic and international aviation at Leeds Bradford Airport. As a result, the emissions are part of the regional allocation of emissions and not allocated to a specific local authority area.
Imported emissions when considered are likely to double emissions. Policy routes to address would include constraining retail and re-localising the economy. It would mean a completely different approach to the industrial strategy around balanced and local growth rather than external and corporate led retail and hospitality.	Imported emissions are outside the scope of the commission. We will include this issue as part of discussions on policy recommendations developed as part of the commission.

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<p>Aviation, shipping and embedded carbon need to be included in regional carbon analyses. If these are not to be included can an estimate of their value be provided?</p>	<p>The emissions from aviation (Leeds Bradford Airport) have been calculated as part of the commission.</p> <p>Shipping and embedded emissions are outside of the scope of the commission but will be considered as part of future commissions.</p>
<p>At what point in the study will the wider societal co-benefits (especially the public health benefits) of any of the interventions be considered?</p>	<p>We will consider the co-benefits as part of developing the pathways and will share these with stakeholders.</p>
<p>The transport section doesn't appear to demonstrate a real understanding of the issues. It would be good to see more emphasis on reducing the need to travel, and then on modal shift to achieve active travel, especially for short, frequent journeys.</p>	<p>We have reviewed this comment with our consultants and can confirm information on reducing travel through tele and video conferencing is factored into the pathways. This in turn reduces the amount of passenger and vehicle kilometres travelled.</p> <p>We can also confirm modal shift is part of the modelling of the pathways with significant increases likely to be required across rail, bus, walking and cycling.</p>
<p>Electric cars are only very much a partial solution, given the infrastructure needed both to produce the green energy required and to accommodate charging. Also, they are still motor vehicles with many of the negative impacts of the current fleet on active mobility and public health, especially in disadvantaged groups.</p>	<p>We will include this issue as part of discussions on policy recommendations developed as part of the commission.</p>
<p>The scenarios should be brought into line with other strategies and policies, such as the focus on developing quality places / neighbourhoods.</p>	<p>We agree with this comment. Achieving net-zero cannot be delivered in isolation. As a result, it will need to work and interact with other strategies and policies.</p>

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	An example of this is where the outputs of the commission will be used to inform the future direction of the Connectivity Strategy for West Yorkshire.
Modal shift is hugely challenging to bring about. Sticks as well as carrots are needed to reduce car-dependency.	We will include this issue as part of discussions on policy recommendations developed as part of the commission.
Provision of an affordable, reliable, convenient green bus service, run for the benefit of citizens is an essential prerequisite to reducing the emissions associated with transport in West Yorkshire.	We will include this issue as part of discussions on policy recommendations developed as part of the commission.