
Report to: Green Economy Panel

Date: 07 July 2020

Subject: **Emission Reduction Pathways**

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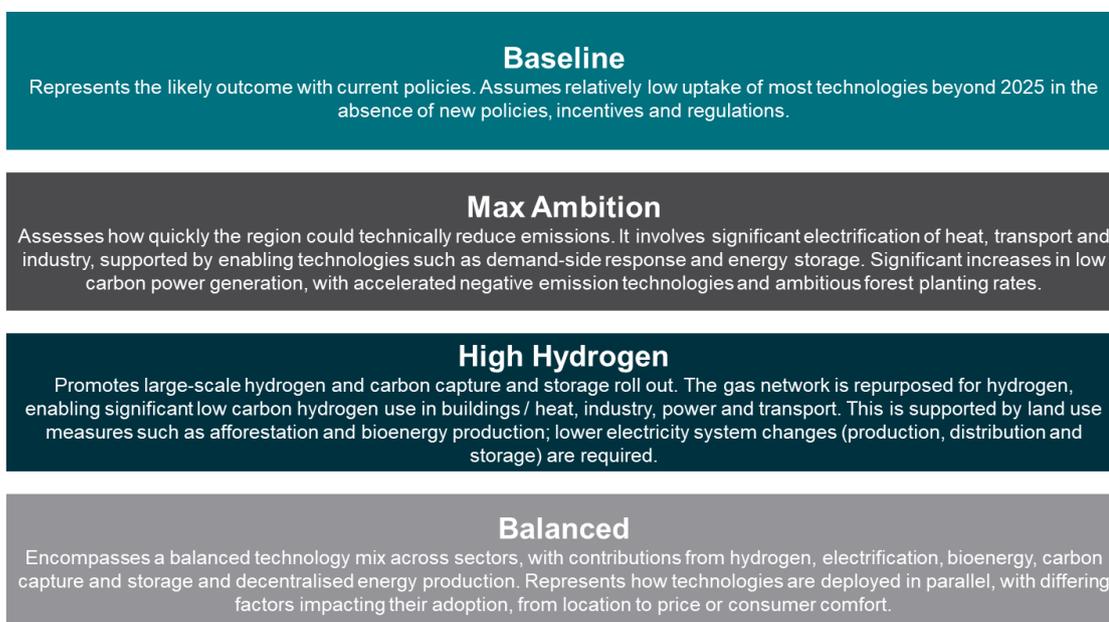
1. Purpose of this report

- 1.1. To provide the Panel with an update on the West Yorkshire Emission Reduction Pathways study, which will inform future decisions about how to tackle the climate emergency and become a net-zero carbon Leeds City Region.
- 1.2. To gain the Panel's endorsement of the findings and next steps, and for the Panel to advise the Combined Authority to be minded to approve engagement with non-local authority stakeholders.

2. Background

- 2.1. The below information provides a summary of the emerging key findings of the Emission Reduction Pathways (ERP) study and the proposed approach to engagement and communications. A presentation will be provided to the Panel at the meeting providing more information.
- 2.2. The West Yorkshire Combined Authority, in partnership with West Yorkshire councils, is taking a lead role in tackling climate change and has prioritised action to decarbonise the economy.
- 2.3. The Combined Authority declared a climate emergency in July 2019 and strengthened the Leeds City Region target for emission reductions to net-zero carbon by 2038, with significant progress expected by 2030. The target is based on research undertaken for the Combined Authority to ensure alignment with the Paris Climate Agreement. The task is challenging and will require significant and swift action to decarbonise all sectors.

- 2.4. The purpose of the Emission Reduction Pathways (ERP) study is to assist the Combined Authority in understanding the ways in which West Yorkshire could address the climate emergency and meet the regional emission reduction ambition.
- 2.5. The ERP will also support West Yorkshire councils to develop their respective climate emergency plans and help with the development of a shared pipeline of opportunities to work together on. It should be noted that some Councils have set their own local targets.
- 2.6. The study focusses on five sectors: Industry, Power, Buildings, Land Use and Transport, and consists of three main tasks:
- **Task 1:** Develop emission reduction pathways that demonstrate how each area can deliver / comply with its emission reduction target and carbon budget (draft nearing completion).
 - **Task 2:** Produce an implementation roadmap based on the emission reduction pathways.
 - **Task 3:** Produce policy recommendations and an action plan that delivers the activity identified in Tasks 1 and 2.
- 2.7. Pathways towards 2038 have been considered within the context of three scenarios: Max Ambition, High Hydrogen, and Balanced. The figure below provides more information on each of these.



- 2.8. Task 1 is nearing completion. Some emerging findings are summarised in this report. The full results will be available by end of July 2020. The draft outputs are informed by a comprehensive technical analysis of over 200 pages; therefore, it has been necessary to distil the findings down into a number of key messages. As a result, the below does not represent an exhaustive list.

2.9. The emerging, key findings from Task 1 are:

- West Yorkshire could reduce emissions by 100 percent by:
 - Achieving emissions savings of between 73 percent and 82 percent by 2038 through the measures that have been modelled across the three future emissions reduction pathways. As an illustrative example, a summary of what would need to be deployed to achieve the most ambitious pathway is set out in **Appendix I**.
 - Reducing remaining emissions (between 27 percent and 18 percent) through a combination of increased ambition relating to the implementation of specific measures and/or applying innovative emission reduction technologies. Potential areas that could generate additional savings include increasing the amount of land allocated to the planting of trees, generating a higher amount of electricity from large-scale solar farms, maintaining the levels of remote working seen throughout the COVID-19 pandemic, and providing funding / R&D support for innovative emission reduction technologies. Achieving this level of ambition will be explored with stakeholders in task 2 and 3 above.
- Achieving the levels of emission reduction modelled will require funding support and policy change from national government.
- Highly ambitious leadership and policy at all levels will also be needed to deliver the emission reductions identified.
- Several key challenges will need to be overcome to achieve the target e.g. misalignment with government policy making.
- Businesses, the public sector, and communities will need to work together to deliver the measures outlined in the study.

2.10. These are the emerging results of Task 1 only and there is no preferred pathway at this stage. Task 2 and 3 will continue to build on this work and explore with stakeholders how to fully achieve the Net Zero Carbon 2038 target. See paragraph 2.18 of the report for further details on these plans.

2.11. A preferred pathway has not been selected at this stage due to a large degree of uncertainty e.g. national policy on heat decarbonisation, associated with some of the measures identified. Selecting a preferred pathway at this stage may act to disadvantage the region in the future.

2.12. It is the ambition of the Combined Authority, through the Climate Coalition, to select a preferred pathway for West Yorkshire as and when more clarity becomes available. This will be reviewed on an annual basis.

2.13. Although a preferred pathway cannot be selected at this stage, action to address the target should not be delayed as more certainty is sought. There are a range of common actions which need to be implemented to progress towards the target which apply whichever pathway is chosen and these should be the initial focus.

2.14. The common actions are the minimum levels of ambition West Yorkshire should be focussing on delivering in the short-term. Doing so ensures action towards the target can occur at the earliest opportunity.

2.15. Common actions include:

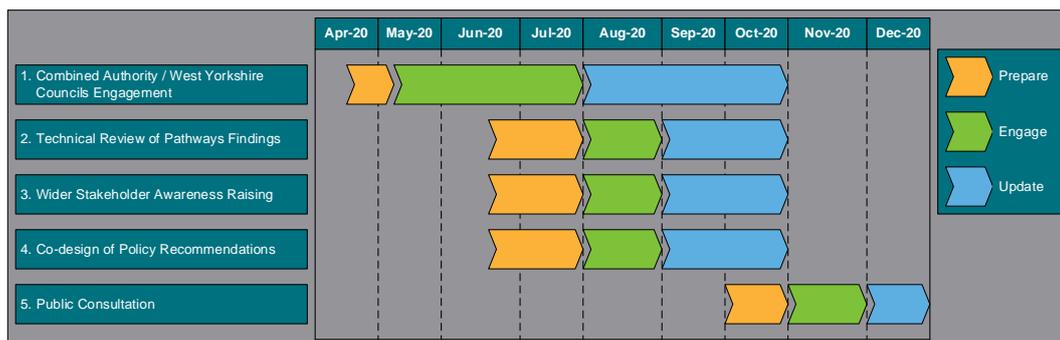
- Maintaining the demand for travel at roughly pre-COVID-19 levels but changing the modes of transport which are meeting this demand, including:
 - reducing the demand for travel by private car to a minimum of 21 percent below pre-COVID-19 levels.
 - increasing the levels of travel by walking (78 percent), cycling (over 2,000 percent), bus (39 percent), and rail (53 percent) as a minimum over pre-COVID-19 levels.
 - reducing passenger travel by a minimum of 12 percent through home working, teleconferencing and greater co-location of housing with workplaces and amenities. This is an example where West Yorkshire councils could lead by example e.g. significant home working post COVID-19.
- Retrofitting nearly 700,000 of West Yorkshire's homes with energy efficiency measures such as loft and cavity wall insulation.
- Installing heat pump heating systems in over 300,000 of West Yorkshire's homes.
- Generating enough electricity from onshore wind and solar within West Yorkshire to cover the power demands of over 162,000 homes.
- Investigating how carbon capture and storage technology can be applied to the energy from waste facilities (four existing facilities plus a further two proposed) in the region.
- Increase the area of woodland / forest coverage in the region by the equivalent of 452 football pitches.

2.16. **Appendix II** sets out what the above could mean for communities, residents, and businesses across West Yorkshire.

- 2.17. These common actions will form the cornerstone of activity to build the West Yorkshire Climate Coalition and the new low carbon pipeline of project and associated funding asks.
- 2.18. A risk assessment will be undertaken on the measures (including the common actions identified above), policy recommendations and actions identified in the study to understand the impact on achieving the target if they were not to be delivered.

Engagement

- 2.19. The current situation relating to COVID-19 has had a significant impact on plans to engage and consult with stakeholders on the findings of this work and on the potential preferred pathways to achieve the net zero carbon targets.
- 2.20. Initial engagement proposals to run sector-specific workshops in April 2020 had to be cancelled due to the pandemic and have now been revised to take place virtually and be supplemented by additional engagement activities.
- 2.21. A five-step process has now been agreed for engagement on the study. The process is:
 - i. **Combined Authority / West Yorkshire councils engagement.** To make the Combined Authority and West Yorkshire councils aware of the key findings of the study prior to engagement with a wider stakeholder audience (underway).
 - ii. **Technical review of pathways findings.** To validate the technical work underpinning the study.
 - iii. **Wider stakeholder awareness raising.** To make a wider stakeholder audience aware of the key findings of the study.
 - iv. **Co-design of policy recommendations.** To gain stakeholder input into the design of the policy recommendations that underpin the delivery of the findings of the study.
 - v. **Public consultation.** To consult with a wide range of stakeholders on the study.
- 2.22. The figure below sets out the timescales associated with process identified above.



2.23. Significant engagement has already been undertaken with officers from the Combined Authority and West Yorkshire councils to socialise and receive feedback on the findings of Task 1. A summary of the feedback is contained at **Appendix III**. The culmination of this engagement is the 27 July Combined Authority meeting.

2.24. Engaging non-local authority stakeholders and their input is a key part of the engagement approach for the study. Parts ii to iv above seek to gain this input and will be run in parallel through an online survey, focus groups, and a media campaign. This activity will be focussed on gaining feedback on the findings developed to date and input into Tasks 2 and 3.

2.25. A public consultation period will also be run in the autumn to gauge public appetite for the measures identified and inform the prioritisation of future activity to address the climate emergency in West Yorkshire.

Next steps

2.26. The findings outlined above represent the first part of this work. The next phase is the co-design, with partners and stakeholders, of the implementation roadmap, policy recommendations and action plan¹.

2.27. As outlined above it is proposed to take a report to the 27 July Combined Authority meeting to provide oversight of the study and approve plans to consult stakeholders on the co-design of the next phases of work.

2.28. Subject to approval by the Combined Authority, engagement with wider stakeholders will commence in late July 2020 through the activities identified in 2.23 and 2.24 above.

2.29. The findings of the study to date demonstrate how significant emissions can be saved and how they contribute to meeting the target. The initial findings represent the starting point from which the whole of West Yorkshire can help

¹ The implementation roadmap will set out the milestones that are associated with the delivery of the different measures identified in the pathways. The purpose of the roadmap is to assist in the prioritisation of action. The policy recommendations and action plan will set out how the policies and actions, included the role of different stakeholders, that will enable the measures identified in the pathways to be delivered.

shape the levels of ambition in meeting net-zero carbon that are over and above the reductions identified in the study.

- 2.30. Work to be undertaken in Tasks 2 and 3, with the input of partners and stakeholders, is the opportunity to shape how ambitious West Yorkshire can be in meeting its net-zero carbon target. This will include a consideration of how the implications of COVID-19 and the green recovery can contribute.

3. Clean Growth Implications

- 3.1. The work described in this report is central to ensuring that the City Region understands how it can decarbonise key sectors by 2038 and make significant progress by 2030. Results of the study will be fed into a refreshed Tackling the Climate Emergency Action Plan for the City Region, to the Combined Authority's connectivity strategy work to develop a pipeline of future transport interventions and the COVID-19 recovery plan.

4. Financial Implications

- 4.1. The study is funded through contributions from the Combined Authority's economic and transport policy sections, the North East Yorkshire and Humber Energy Hub and York and North Yorkshire LEP.
- 4.2. Technical and policy costs associated with the study will be calculated as part of Tasks 2 and 3. This information will provide a high-level indication of the funding that will be required to deliver the measures and policies that have / are identified.

5. Legal Implications

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

6. Staffing Implications

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

7. External Consultees

- 7.1. A wide range of stakeholders have been engaged in shaping the commission. These include regional organisations such as Northern Powergrid, Northern Gas Networks, Drax and Yorkshire Water, local authorities and civic society including Leeds Living Streets, Friends of the Earth and the Leeds Climate Commission.

8. Recommendations

- 8.1. That the Panel note the contents of the report and provide feedback.

8.2. That the Panel advise the Combined Authority to endorse the findings of the study to date and to approve engagement beginning with partners and stakeholders.

9. Background Documents

9.1. None

10. Appendices

Appendix I. Max Ambition Pathway

Appendix II. What the pathways mean in 2038 for communities, residents and businesses

Appendix III. Summary of feedback received to date