

Excerpt from: West Yorkshire Combined Authority Carbon Impact Assessment summary findings (report by Mott MacDonald)

Phase 1 Guidance and Toolkits recommendations

A series of recommendations emerged from Phase 1 of the project, which was to review industry carbon assessment best practice, compare against the Combined Authority practice and make recommendations. These are detailed below. Many of the recommendations were addressed in later phases of the Carbon Impact Assessment project.

To aid the reader, the recommendations that have been addressed in subsequent stages of the Carbon Impact Assessment commission are shown in plain text below, while aspects that remain as recommendations for the future are shown in italic text.

6.2.1 General principles

In addition to specific recommendations for different stages of the Combined Authority's Assurance Process, there are several general principles which should be followed when considering carbon within the Assurance Process. The Combined Authority should:

4. Follow the proportionality principle. This will ensure the major sources of carbon are assessed in the most detail and prevent unnecessary effort being required on proposals which have a minimal impact.

5. Underpin the overall approach with a consistent set of assumptions and rules. These should be articulated clearly to scheme sponsors and decision-makers.

6. Consider carbon for all project types where a significant impact is expected, not just for "good" emission reduction projects, in the interests of transparency.

7. Continue to include carbon in the economic assessment, but also report carbon separately, whether as a clearly defined part of the Strategic Case (which would fit best with government guidance) or as a 6th case in the business case model. Reporting the carbon impact separately will emphasise its importance to decision makers.

8. Continue to value the economic impact of carbon in the appraisal of transport proposals and include the economic valuation of carbon for non-transport proposal types such as non-transport projects, in line with Green Book guidance. The Combined Authority should also consider including the valuation of other environmental impacts¹, where methodologies already exist to capture these impacts, and the data is available for their application.

¹ Other environmental impacts include indicators such as air quality, biodiversity, chemical pollution, nitrogen and phosphorus loading, and soil and waterway health.

9. Contextualise the magnitude of carbon emissions from proposals to relevant local scale targets and indicators, rather than only compare to national targets and budgets.

6.2.2 Recommendations for toolkit development

10. Test and pilot proposed approaches before deciding on final methods. This will be essential to refine the methods for real projects being assessed within the assurance process to account for data limitations and other practical constraints. Compatibility with the requirements of the Combined Authority assurance process also needs to be fully tested.

11. Engage directly with the team revising the Combined Authority assurance process which is being developed in parallel to the recommendations in this project. Collaboration will be essential to ensure that the two processes integrate effectively. Also agreeing distinct areas of ownership for the two teams will provide clarity and focus and allow effective delivery of both workstreams.

12. Produce guidance and training within an assurance process used to support consistent application of methodologies. The supporting guidance and categorisation lists should be regularly reviewed and updated, considering lessons learned through the application of the Assurance Framework.

6.2.3 Recommendations for toolkit application

13. Responsibility for preparing the business case documentation, including the carbon assessment, should sit with the scheme promoters.

14. To ensure consistency of toolkit application, it is recommended that the Combined Authority make provision to audit and quality assure business cases and provide support to project promoters where necessary.

6.2.4 Stage 1: Assessment and sequencing

Activity 1: Pipeline identification and gateway assessment

The Strategic Assessment stage should:

15. Have a section on “tackling the climate emergency”.

16. Require project promoters to categorise their project according to whether they are expected to directly support the region’s decarbonisation pathways or be in conflict. Similar project types which have previously been completed may be used as a benchmark to determine whether the project is expected to increase or decrease carbon emissions, which will be outlined in supporting guidance. The suggested categories are:

- a. Fully compatible (positive): fully aligned with decarbonisation pathways
- b. Conditional: compatible only under certain conditions
- c. Risk of non-compatibility (negative): risk of supporting investments that are inconsistent with the pathways.

17. Be supported by guidance for project promoters to undertake this qualitative assessment. This should take the form of a list of project types that are expected to fall into each category which will be developed as part of this project if this recommendation is adopted. The list could be based on the analysis that has been carried out to develop West Yorkshire's Carbon Emissions Reduction Pathways. A methodology note should be developed to accompany the list of project types, to provide transparency on the approach used and to categorise project types. This will be developed as part of this project if this recommendation is adopted. The guidance would help ensure a more consistent assessment of projects against this priority area, as well as helping project promoters to understand the types of projects that will contribute strongly towards the region's climate target.

Activity 2: Strategic Outline Case (SOC)

The Strategic Outline Case stage should:

18. *Have a section on "tackling the climate emergency".*

19. Require project promoters to capture at a high level the magnitude of the project's carbon impact in addition to the direction (positive or negative). This will help to differentiate the impact of different projects and identify where strong positive impacts are expected (which should be enhanced) or strong negative impacts are expected (which should be mitigated).

The suggested categories are:

- a. Long lasting or extensive positive impact
- b. Short term or limited positive impact
- c. No impact or neutral impact
- d. Short term or limited negative impact
- e. Long lasting or severe negative impact

20. Be supported by guidance to assist the project promoter with the qualitative categorisation. For example, the guidance may include a form of scoring matrix, with different project types of different scales. This guidance will be developed as part of this project if the recommendation is adopted.

21. Ask supplementary questions about the project, the responses to which will drive the need for further assessment in the scheme development phase, for example:

a. Is the proposal expected to involve significant construction or the consumption of significant volumes of materials or products? If yes, you will be expected to consider embodied emissions at OBC and FBC stages.

b. Is the proposal economic case expected to depend on future traffic assumptions? If yes, you will be expected to conduct a sensitivity test on the economic case at OBC and FBC stages.

c. Is the proposal expected to result in long term induced effects, such as attracting additional traffic demand or leading to further development? If yes, you will be expected to consider these effects in more detail at OBC and FBC stages.

In addition, the Combined Authority should consider whether to develop an approach using the doughnut economics framework, which would be used to assess a broader range of impacts in addition to carbon:

- The doughnut economics framework could be adapted to assess the specific priorities of the region, for example being shaped around the five priorities set out in the Strategic Economic Framework.
- However, adopting such an approach would need careful consideration to ensure compatibility with the ongoing revision to the Assurance Framework. Many of the indicators normally included in a doughnut economics approach are already considered elsewhere in the Wider Strategic Alignment template, so to avoid the risk of incompatibility and/or duplication this would require both processes to be designed in an integrated way.
- The doughnut economics approach is effective as a communication device when considering a range of indicators, in addition to its use as an assessment tool. The doughnut economics approach may therefore be used as a way of representing the overall Strategic Outline Case (SOC) assessment using the full range of indicators in the Wider Strategic Alignment.

Should the Combined Authority choose to develop the doughnut economics approach for application at SOC, it is suggested that its development be owned by the team revising the Assurance Framework. As part of the specification to be developed during Phase 2 of this project, a suggested list of categories for the Assurance Framework to adopt will be included, which will be in line with those set out in the West Yorkshire Combined Authority Strategic Economic Framework.

6.2.5 Stage 2: Scheme development

Activity 3: Outline Business Case (OBC)

The Outline Business Case should:

22. Have a section on “tackling the climate emergency” in which the carbon would be quantified and reported separately from the economic case.

23. Where the emissions sources are judged to be significant, seek to quantify carbon emissions sources for transport and non-transport proposals including:

- a. In operation
- b. Additional induced effects
- c. Embodied or capital carbon

These three categories should be reported separately, to enable consistency with existing Green Book guidance (for example, DfT TAG only includes “in operation”) and existing reporting (for example, Combined Authority emissions and carbon pathways work does not include embodied). The degree of accuracy and level of

effort required to perform this quantification should be proportionate to the expected magnitude of the impact.

24. Adopt a screening approach to establish whether quantification is necessary and a proportionate approach to adopt. For example:

a. For capital carbon, the promoter would be asked to confirm if a significant amount of construction is involved and a threshold (e.g., capital spend) could be used to identify which proposals should be subject to a more detailed assessment versus the application of a simple benchmark.

b. For additional induced effects, only scheme types that have been previously identified as being reasonably sensitive to these induced effects need perform this calculation.

c. For the value for money assessment, only scheme types known to have an economic case reasonably sensitive to the “carbon pathway compliant” set of assumptions need to perform this sensitivity assessment.

The results of the assessments carried out during Stage 1 can be used to inform this screening.

25. Develop a tailored approach to carbon quantification which recognises that different issues exist for different sectors and likewise different tools should be used for different types of proposals.

26. Primarily seek to use off the shelf tools for carbon quantification. Bespoke calculations or new methodologies should be developed only for project types where there is not an existing approach and the magnitude of carbon emissions warrant a bespoke method.

27. Guide the project promoter to the most appropriate quantification approach for their project.

28. Use a consistent reporting framework for the carbon quantification, even though a diversity of tools and approaches may be used across different project types.

29. Seek to use assumptions for carbon quantification into the future that are consistent with the future assumptions in the Combined Authority carbon pathways. A future set of assumptions should be developed for this agreed “carbon pathway compliant” future scenario to cover the assumptions required in the most common proposal types. The set of assumptions should be based on the carbon pathways work and analysis conducted by Element Energy.

30. Include an additional sensitivity test in the value for money assessment, which tests the impact of the “carbon pathway compliant” set of assumptions on the economic case for the project. The findings of this sensitivity test would be reported in addition to the value for money assessment using the standard Green Book compliant set of assumptions.

31. Have standard approaches developed for assessing embodied carbon and additional induced effects. Noting that neither of these impacts are currently

assessed for the Combined Authority projects, the calculation approaches should be proportionate, reflect the level of data likely to be available and not place an unnecessary burden on the project promoters.

32. Require project promoters to consider lower carbon alternatives.

Activity 3: Full Business Case (FBC)

The Full Business Case should:

33. Adopt the same principles, calculation methodologies and reporting framework as at OBC. The project promoter should be required to update the assessment results where more detailed information has become available and identify carbon reduction measures adopted compared to the proposal as characterised at OBC.

6.2.6 Stage 3: Delivery and Evaluation

In the delivery and evaluation stage:

34. The project promoter should be requested to update the carbon assessment completed at Outline Business Case with improved carbon data. This may take the form of measured data (e.g., using post scheme traffic levels) which is often recorded as part of the normal project delivery process but may not be consistently reported back up to the Combined Authority.

35. In the spirit of continuous improvement, the findings of the updated assessments along with other observations (e.g., carbon reduction opportunities identified) should be fed back to improve the evidence base and the assessment methodology in Stage 1 and Stage 2.