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**Report to:** Green Economy Panel

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**Subject:** **Carbon Impact Assessment**

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## **1. Purpose of this report**

- 1.1 This paper provides an update on the work commissioned by the Combined Authority to develop a carbon impact assessment tool and incorporate this into the Assurance Framework. This work will ensure that the impact of proposals on the Climate Emergency are more explicitly taken account in decision making.

## **2. Information**

### Background

- 2.1 Given the scientific consensus that human influence is overwhelmingly responsible for changes in the global climate, addressing the climate emergency is a key priority for the Combined Authority and the West Yorkshire councils.
- 2.2 The Combined Authority declared a climate emergency and strengthened the City Region's carbon emission reduction target in July 2019. The strengthened target commits the region to achieve net-zero carbon by 2038, with significant progress by 2030. The task is challenging and will require significant and swift action to decarbonise all sectors.
- 2.3 The Panel have received regular updates on work to develop a strengthened, robust, quantifiable methodology for assessing clean growth and climate change impacts of all schemes coming through the Assurance Framework. This report provides more detail on this work.

### The carbon impact assessment project

- 2.4 A methodology and supporting toolkit for assessing carbon emissions and clean growth impacts of new schemes is being developed, and the Combined

Authority has appointed Mott Macdonald to carry out this work. A technical steering group, including officers from all West Yorkshire councils and York, has been established to develop the work and oversee the commission.

2.5 The work underway has five phases:

- Phase 1: Review of national and local examples of best practice in carbon assessment (September and October 2020)
- Phase 2: Development of the carbon impact assessment toolkit (October 2020 to March 2021)
- Phase 3: Applying the toolkit to existing capital schemes currently going through the Assurance Framework (February to April 2021)
- Phase 4: Carry out an in-depth assessment and recommend carbon mitigation measures for a shortlist of schemes in development (March to May 2021)
- Phase 5: Carry out training to partners and embed the toolkit in the Assurance Framework (February to August 2021)

2.6 Phase 1 has been completed and involved:

- An external review of best practice in calculating carbon emissions and some wider environmental impacts
- A Review of how internal decision-making practices in the Combined Authority take carbon impacts into account
- Recommendations for what should be included in a new carbon impact assessment toolkit for the Combined Authority

2.7 The Consultants have now developed more detailed proposals for the methodology that should be used at each stage of the assurance process (Phase 2). These include technical notes and firm guidance on:

- Strategic Assessment (Activity 1) - a check on the alignment of the proposal with Carbon Emission Reduction Pathways
- The development of the Strategic Outline Business Case (Activity 2) - a qualitative screening process which assesses the wider sustainability/environmental impacts.
- Additions to the Outline Business Case (Activity 3) and Full Business Case (Activity 4) - a quantitative assessment of the carbon impact of proposals, this includes:
  - The carbon included in the construction of any infrastructure (embodied carbon)
  - The impact of the normal operation of the proposal (without any behavioural response to the intervention)
  - The impact of any behavioural response to the intervention

2.8 The methodology will be refined as it is used to assess the existing projects in the assurance process (in Phase 3). Particular challenges include:

- How to present the carbon impact assessment so that it is prominent within the business case and that it includes as much context as possible to assist decision makers. The carbon impact assessment methodology will not be able to suggest definitively whether a scheme should proceed or not but it will provide an important piece of evidence (the carbon impact) which can be taken into account by decision makers.
- Careful consideration of the counterfactual (what would have happened without the intervention). This is important to ensure that the intervention is assessed compared to a realistic assessment of what would have happened in the absence of the CA investment.
- Robust methodologies for assessing the behavioural response to interventions so that this important source of carbon impact can be properly assessed.
- The background assumptions to be used in the assessment of carbon impact, for instance traffic and fleet composition forecasts. For the assessments of existing projects these will have to match those made in the existing economic assessments. For future assessments, the consultants have recommended the use of assumptions which are consistent with the Carbon Emissions Reduction Pathways work and this will require an extra sensitivity test to be carried out in the economic assessment.

2.9 At the same time as the methodology was being developed, CA officers have been briefing officers in partner councils about the proposals, as well as presenting to meetings of the Directors of Development and Chief Highway Officers. Some briefings of elected members have also been held.

2.10 An important aspect of the project is making sure carbon impact assessment is incorporated into the assurance process so that it is considered in future decision making. Liaison is taking place between the consultants developing the methodology, the CA team overseeing the commission and the officers taking forward the revisions to guidance and templates through which the assurance process is implemented. The timescale for including carbon impact assessment in the assurance process will be determined by when the guidelines and templates which include carbon impact assessment are completed and adopted.

#### Next Steps

2.11 Work on Phase 3 of the project (the assessments of existing schemes) is now underway. A list of projects which are in scope for assessment has been supplied to the consultants. These include all the transport schemes progressing through the assurance process (and not already into delivery) as well as a selection of non-transport schemes. As mentioned above, the methodology used is likely to develop as it is used to assess these existing

schemes. The selection of non-transport schemes was therefore made so as to include as wide a selection of different types of scheme as possible.

2.12 It is likely that several issues that will need to be considered when applying the tool (Phase 3). For non-transport schemes new techniques will need to be developed to assess carbon impact. For transport schemes, more detailed consideration will need to be given to the last two bullet points above and the assumptions made for the purposes of carbon assessment may have to be different from those used in the economic assessment. These assumptions include:

- Fleet composition and background traffic forecasts – these are highly uncertain over the appraisal period (typically 60 years), especially given COVID-19, but the assumptions used can make a significant difference to the carbon impact of a scheme, as well as to the economic appraisal.
- The impact of the scheme on traffic levels and trip making – It is often difficult to assess the specific impact of the scheme, but for the purposes of carbon assessment, this is likely to be important.
- Traffic associated with new developments and whether this should be included in the assessment of transport schemes which affect the viability or success of such developments.

2.13 Phase 4 (in depth assessment and recommendation of carbon mitigation measures) will provide scheme promoters with information about the carbon impacts and inform next steps. The outcomes of the assessments of existing schemes, including potential mitigation for shortlisted schemes, will be discussed with partners to consider recommendations to be reported to the Combined Authority in June 2021.

### **3. Tackling the Climate Emergency Implications**

3.1 The proposed carbon impact assessment tool will assist decision makers in taking the carbon impact of proposals into account and is considered an important tool in understanding how our investment can support the ambition to becoming a net zero carbon economy by 2038.

### **4. Inclusive Growth Implications**

4.1 Although the carbon emissions impact of investment is a key focus for the methodology under development through this work, the proposed toolkit includes qualitative screening process at Strategic Outline Case stage (Activity 2) which support assessment of schemes' contribution to wider environmental, sustainability and social impacts.

### **5. Financial Implications**

5.1 There are no financial implications directly arising from this report.

**6. Legal Implications**

6.1 There are no legal implications directly arising from this report.

**7. Staffing Implications**

7.1 There are no staffing implications directly arising from this report.

**8. External Consultees**

8.1 A steering group, including officers from all West Yorkshire councils and York has been established to develop this work and oversee the commission. A representative from the Green Economy Panel also sits on the steering group, acting as a “critical friend”.

**9. Recommendations**

9.1 That the Green Economy Panel notes the contents of this report.

**10. Background Documents**

None.

**11. Appendices**

None.