LOW CARBON HUB BOARD

Date: 7 April 2017

Subject: COST BENEFIT ANALYSIS AND CARBON PATHWAY WORK

Report of: Mark Atherton, GM Director of Environment

PURPOSE OF REPORT

The purpose of this report is to advise the LCH Board of two successful research bids which BEIS has agreed to financially support. Once complete, these research projects will fully complete two of the GM Climate Change and Low Emissions Implementation Plan Actions:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>E5</td>
<td>Review the GM and Treasury Cost benefit analysis tool to identify climate change and carbon costs, impacts and benefits</td>
</tr>
<tr>
<td>E6:</td>
<td>Identify and implement emissions trajectory planning and project impact tools in order to inform and establish robust long term targets and priorities for Greater Manchester</td>
</tr>
</tbody>
</table>

RECOMMENDATIONS:

The Board is requested to:

- Note the report

CONTACT OFFICER:

Email: your email, your team
Tel: your telephone number

<table>
<thead>
<tr>
<th>TRACKING/PROCESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does this report relate to a Key Decision, as set out in the GMCA Constitution or in the process agreed by the AGMA Executive Board</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXEMPTION FROM CALL IN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are there any aspects in this report which means it should be considered to be exempt from call in by the AGMA Scrutiny Pool on the grounds of urgency?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>AGMA Commission</th>
<th>TIGMC</th>
<th>Scrutiny Pool</th>
</tr>
</thead>
<tbody>
<tr>
<td>7th April 2017</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>
1.0 BACKGROUND

1.1 Existing approaches to appraising and evaluating projects lack a detailed and consistent approach to accounting for the costs and benefits associated with low carbon impacts and outcomes.

1.2 As with other core UK Cities, Greater Manchester Combined Authority (GMCA) has adopted an ambitious local carbon reduction target (48% by 2020). To deliver on these ambitions, GM and other Core Cities have developed Climate Change Strategies and Plans. However, in addition to the challenges of delivering changes on the ground, a range of challenges have been identified in forecasting the potential of different carbon reduction projects and monitoring emissions for local, national and international reporting protocols.

1.3 GMCA Low Carbon Hub, has submitted a proposal to BEIS to fund two research projects to address these two issues across GM, and share this knowledge with at least 5 other Core Cities as national models for dissemination.

2.0 PROJECT SUMMARIES

2.1 Project 1 - Proposal for development of a consistent CBA methodology for low carbon energy efficiency, generation and storage scheme
The purpose of the study is to develop a consistent:
- set of measures for addition to the Unit Cost database; and
- Cost Benefit Analysis (CBA) methodology for identifying the economic and wider benefits of low carbon energy schemes spanning low carbon and renewable energy generation, energy storage and energy efficiency technologies.

2.2 Project 2 - Setting City and Area Targets and Trajectories for Emission Reduction to 2050 (SCATTER 2050)
The overarching project goal is for Greater Manchester (on behalf of Core Cities) to produce and deliver an evidence-based climate change target for 2050, with agreed trajectory and milestones, using a global first mover implementation of newly developed international tools and standards.

2.3 Annex 1 provides further details of the scope, outcomes, budget and timescale for each of the proposed projects.

3.0 NEXT STEPS

3.1 This proposal has been accepted by BEIS and a sum of £200K has been agreed to fund their delivery, leading on behalf of UK Core Cities.

3.2 Detailed work programmes are currently being devised for both projects. Both projects are highly specialised. New Economy Manchester will be engaged to undertake the Cost Benefit Analysis work. Procurement mechanisms for undertaking the SCATTER research are currently being considered.
ANNEX 1

Project 1 - Proposal for development of a consistent CBA methodology for low carbon energy efficiency, generation and storage scheme

a) Study purpose and scope

Existing approaches to appraising and evaluating projects lack a detailed and consistent approach to accounting for the costs and benefits associated with low carbon impacts and outcomes.

The purpose of the study is to develop a consistent:

- set of measures for addition to the Unit Cost database; and
- Cost Benefit Analysis (CBA) methodology for identifying the economic and wider benefits of low carbon energy schemes spanning low carbon and renewable energy generation, energy storage and energy efficiency technologies.

b) Outputs

The output will be an HM Treasury compliant CBA methodology and bespoke tool-kit that:

- is capable of modelling economic, environmental, health and social costs and impacts arising from investing in low carbon energy projects;
- can be utilised by government departments, LEPs and Local Government to provide a CBA of proposed low carbon interventions;
- will support the development of projects and inform decision makers by making it easier to understand and make the case for investment in low carbon energy generation by improving the approach to calculating the economic and public value case;
- enable scheme promoters, appraisers and decision-makers to compare the benefits from low carbon energy schemes with other developments such as transport, housing, skills, business support, etc.

A further output of the study will an updated Unit Cost Database and a clear and accessible user guide that enables project managers and appraisers to easily operate the model.

c) Estimated Timescale

The timeframe for the delivery of the amended toolkit will be by September 2017 with the full project completed and finalized by November 2017.
Project 2 - Setting City and Area Targets and Trajectories for Emission Reduction to 2050 (SCATTER 2050)

a) Scope
As with other Core Cities, Greater Manchester Combined Authority (GMCA) has adopted an ambitious local carbon reduction target (48% by 2020). To deliver on these ambitions, GM and other Core Cities have developed Climate Change Strategies and Plans. However, in addition to the challenges of delivering changes on the ground, a range of challenges have been identified in forecasting the potential of different carbon reduction projects and monitoring emissions for local, national and international reporting protocols.

The overarching project goal is:
For Greater Manchester (on behalf of Core Cities) to produce and deliver an evidence-based climate change target for 2050, with agreed trajectory and milestones, using a global first mover implementation of newly developed international tools and standards.

b) Outcomes and Outputs
The desired outcomes will be:
- to simplify unnecessary duplication of data requirements and carbon reporting; and
- to provide a definitive model and guidance for other cities and areas which will enable them to adopt a consistent approach.

This will assist long term planning, potentially enable future devolution of climate change targets and accountabilities from national government to areas, save public costs and will align the UK and other world cities with the outcomes of the UNFCC Paris Agreement 2015. The project will devise innovative solutions to forecasting and monitoring of future performance against emissions targets and milestones at the city level.

Indicative Outputs will include:
- production of a bespoke template for Core Cities to calculate their baseline footprint and model the impact their projects will have.
- summary of tools evaluation and selection
- summary report of national and international policy drivers
- summary of considerations for policy interventions based on best practise
- evaluation of existing commitments in GM, development of BAU and primary pathways and targets including strategic risks and opportunities assessment and quantifying and costing the proposed interventions in GM
- Testing the targets and pathway(s) - iterative assessment with key stakeholders
- Finalised toolkit and guidance
- Support for a number of Core Cities to implement the toolkit for themselves.

c) Estimated Timeline
Phase 1 Project development with core cities: April to May 2017.
Phase 2 Procurement (if required): May to June 2017.
Phase 3 Project Delivery: July 2017 to October 2017.
Phase 4 Reporting and Dissemination: November to January 2017.