Carbon Measurement and Management in Economic Infrastructure – PAS

The Green Construction Board Infrastructure Working Group promoted the concept and need of the PAS. It follows the launch of the Infrastructure Carbon Review and the actions identified to enable the value of low carbon solutions to be released.

The PAS will follow the requirement of BSI PAS 0 with a target completion date of November 2015.

THE PURPOSE OF THE ECONOMIC INFRASTRUCTURE CARBON PAS

1. The principal purpose of the Infrastructure Carbon PAS is to define good practice in the measurement and management of carbon in UK economic infrastructure.

2. The Infrastructure Carbon PAS will be targeted at individuals or groups who are or want to be low carbon practitioners in all the sectors of UK economic infrastructure and it will satisfy Action 8 of the HM Treasury Infrastructure Carbon Review (ICR).

3. By providing clear guidance on the measurement and management of carbon, the Infrastructure Carbon PAS will enable consistency across each sector and throughout the value chain. This is intended to join up the value chain and provide an orthodoxy for consistent decision making.

4. Consistency in reporting data on measured projects so that more informed investment choices and decisions can be made at earlier stages in future projects when more opportunities exist to make real carbon savings.
THE PRINCIPLES OF THE ECONOMIC INFRASTRUCTURE CARBON PAS

1. In developing the Infrastructure Carbon PAS, key principles will be followed:
   - It must drive towards reduced carbon and reduced cost
   - It must be relevant to all parts of the value chain as defined in the ICR
   - It must be as clear and simple as possible

2. The Infrastructure Carbon PAS will meet the requirements of a “code of practice” PAS.

3. The Infrastructure Carbon PAS will be sufficiently specific to prevent spurious claims of carbon reductions, but it will not constrain future developments and innovations by being over-specific.

4. To mitigate the unintended consequences of reducing emissions for one “owner” of carbon and displace their emissions to another asset or sector.

THE SCOPE OF THE ECONOMIC INFRASTRUCTURE CARBON PAS

1. In general, the scope will mirror that of the ICR, therefore it will encompass:
   - UK economic infrastructure (Communications, Energy, Transport, Waste, Water)
   - Whole life carbon (including Capital, Operational and End-user Carbon)
   - Carbon that is under the control of UK economic infrastructure

2. As a minimum, the Infrastructure Carbon PAS will address the following aspects of the measurement and management of carbon in infrastructure:
   - How to define baselines
   - How to set appropriate targets
   - How to select appropriate tools/carbon models
   - How to establish effective KPIs and reporting
   - How to establish effective governance
3. In addition, it is anticipated that the Infrastructure Carbon PAS will address:

- Measuring/managing carbon on both investment programmes and individual projects
- Using carbon in optioneering and assessing innovations
- Using carbon estimation techniques that are appropriate to the development of detail throughout the delivery process
- Defining appropriate boundaries for carbon assessment
- Defining the inputs and outputs required from carbon measurement tools
- Encouraging outcome-based specifications

OUTSIDE THE SCOPE OF THE ECONOMIC INFRASTRUCTURE CARBON PAS

1. The Infrastructure Carbon PAS will not address the items referenced on page 5 of the ICR as follows.

<table>
<thead>
<tr>
<th>It is not about...</th>
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<tbody>
<tr>
<td>Other aspects of the wider sustainability agenda</td>
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<tr>
<td>Investing in renewables and decarbonising the grid</td>
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<tr>
<td>Carbon associated with power generation</td>
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<tr>
<td>Carbon that is not under the control of the infrastructure sector – end user carbon</td>
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<td>Climate change adaptation</td>
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2. In addition, it will not address:

- Buildings that are not part of economic infrastructure
- National Policy
- Carbon that is beyond the control (but within the influence) of economic infrastructure
- Carbon at an individual corporate level

3. Most End-user carbon will not be covered in detail, apart from recognising its significance. However, the PAS will encourage carbon investment decisions to be made recognising the likely end-user Carbon effects (and encourage capital carbon investment to save greater amounts of use carbon).
ISSUES THAT WILL BE ADDRESSED IN DEVELOPING THE ECONOMIC INFRASTRUCTURE CARBON PAS

1. The development of the Infrastructure Carbon PAS will include the following:

- Literature review (avoiding duplication of the existing routemap, ICR and BSI literature review)
- Process map detailing the steps required in measuring, managing and reducing carbon, recognising the different features of the various types of Economic Infrastructure.
- A modelling template that provides guidance on how to estimate the carbon impact of a product, asset or construction technique.
- Information on raw data sources available, but without being too specific, so that manufacturers can be properly incentivised to seek to make meaningful reductions over time in the Capital Carbon embodied in their products and materials.
- Referenced Standards, such as – PAS 2050, PAS 2070, World Resource Institute Green House Gas Protocol
- Required Classifications and standard names such as for operational carbon, capital carbon, whole life carbon