GREEN CONSTRUCTION BOARD – future focus

SUMMARY

Achieving Construction 2025 Carbon Target

Over the next two years, as a key part of Construction 2025 - the Industrial Strategy for Construction, the Green Construction Board will work with partners from across the industry to:

- Build on the Low Carbon Infrastructure Review to continue to achieve carbon savings and economic benefit in the infrastructure sector
- Develop plans in other markets to achieve cash savings and economic benefit. The cash and carbon benefits of these plans will be determined as above
- Develop plans for the construction industry to address its own carbon impacts. The cash and carbon benefits of these plans will be determined.

As part of this process, carbon savings and economic benefit will be identified for each work stream.

The Green Construction Board will tackle some of the key barriers to progress specifically related to the delivery of these plans:

- Skills
- Measurement and reporting
- Convincing people of the business case.

Activities under these headings will be drawn together in the Green Construction Board “Commitment Tree”.

1) CONTEXT – Saving carbon, saving cash

The Green Construction Board’s (GCB) central objective is to identify steps which can be taken to deliver the ambition of a 50% reduction in greenhouse gas emissions by 2025.

To inform its approach, the Board draws extensively on the 2050 Low Carbon Construction Route Map. This draws a number of conclusions and makes a number of recommendations.
LOW CARBON CONSTRUCTION ROUTE MAP

1) Meeting the (2050) 80% carbon reduction target is challenging, but technically possible

2) There are strong opportunities to drive carbon reduction and promote ownership of carbon in specific sectors

3) There are key issues that need to be monitored and addressed across the building sector to enable carbon reduction to be realised

4) Capital carbon must start to be addressed in tandem with operational carbon

5) The drive to 80% carbon reduction represents an economic opportunity.

The Low Carbon Construction Routemap starts to answer the question, “where is the carbon?”

Ordering the 10 non-domestic building types by most to least carbon emitted shows that the top three (retail, education and warehouses) emit 50% of the non-domestic carbon and the top five emit 71%
The route map demonstrates the scale of the ambition in Construction 2025. To be effective, the GCB needs focus on small number of opportunities as key priorities. These are based on those sectors where the GCB considers there to be the greatest potential over the next two years.

2) PRIORITIES

a) Sectors

Infrastructure

The GCB has in place a robust, rolling strategy to reduce carbon and capital and operational costs in the infrastructure sector (the Low Carbon Infrastructure Review) – saving as much as 24 million tonnes of carbon and £1.46 billion per year by 2050. Carbon reduction in this sense also involves stimulating innovation, i.e. investment in cleaner technologies to reduce the carbon impact. The strategy has been achieved by working with clients and businesses across the supply chain who are convinced that lower carbon can deliver lower costs. This initiative also supports the Infrastructure Cost Review, published by Infrastructure UK in 2010.

The Green Construction Board is looking to build on this approach and seek to apply it to other sectors.

Retail and Lighting

The GCB is working with the lighting industry and the retail sectors to try to generate a similar carbon/energy/finance-saving initiative, principally in the hard-to-reach mid-sized retail segment, to replicate the action already being undertaken by the larger retailers. Lighting accounts for 53% of the emissions from retail. Information gathered from the large retailers highlights the fact
that the fitting of energy-efficient lighting such as LED delivers 40 - 45% energy saving. The route map indicates that if LED lighting was to be fitted across the retail estate this would generate significant CO2 and cost savings. The GCB is working with the British Retail Consortium, British Council for Shopping Centres and others to more sharply define the business case to present this at an autumn DECC/BRC energy management conference, after which it is hoped to embark on a series of regional road shows to promote the benefits of more energy efficient lighting to mid-sized retailers.

The GCB is also exploring the possibility of getting traction for this idea with major shopping centre owners and exploring potential financing options with the Green Investment Bank.

This activity has been carefully shaped to ensure that it complements other existing activity including work being taken forward by the BRC and by DECC’s Retail Energy Efficiency Task Force.

Existing Buildings

Members of the Better Buildings Partnership (BBP) are able to demonstrate the business case for low for energy efficiency retrofits. Rather than duplicating this activity, the Green Construction Board will work with the BBP on two particular opportunities. The first follows on from the GCB’s work on the causes of the performance gap. The second is to explore the opportunities for ‘upscaling’ retrofit in the commercial sector.

The BBP has indicated that it would like to work closely with the GCB going forward.

Public Sector

1. Education
In the non-domestic sector, education is the second biggest producer of carbon emissions. Lighting accounts for approximately a third of those emissions. If the education sector was to follow the example of retail and there was widespread adoption of energy efficient lighting, significant carbon and cash savings would follow. The GCB will explore the potential for activity in this area.

2. The Central Government Estate
The DECC Building is demonstrating the considerable savings that can be achieved through the adoption of more energy efficient technologies and more effective building management systems. The carbon and cash savings will be available shortly and if it was possible to extrapolate the wider benefit to more of the central Government estate considerable savings of cash and carbon could be made. Again, the GCB will explore the potential.
Supply Chain

The GCB is working with parties from across the construction supply chain to build on the achievements of the Strategy for Sustainable Construction which gave rise to commitments such as “halving waste to landfill”. Initially the focus will be on the UK Contractors Group as that represents the point at which the entire supply chain comes together to deliver projects. The Green Construction Board will also seek to work with other partners and organisations from across the supply chain to develop further commitments.

Domestic

The domestic sector accounts for over half of the carbon emissions in the built environment. However, the landscape is complex, “ownership” of the carbon is atomised and there are already significant actions in train to tackle some of the key issues in the sector.

The GCB will review work already in hand to build the framework for an effective programme over the long term. In addition to considering the overarching framework, the GCB will also seek to identify specific actions which might be taken forward in the shorter term. This might include work with Registered Social Landlords or looking at solid wall insulation.

b) Cross-cutting issues

Skills

The GCB’s key focus is on responding to the knowledge and skills issues raised through work with the priority sectors. This will sit alongside more general work on finding ways to embed green skills needs in the existing qualifications framework, identifying how the changes to apprenticeship standards, and wider activity under the Industrial strategy, could be best exploited to encourage green skills.

Measurement and Reporting

Work has just started which looks at how bigger and better operational energy use data might be promoted. It will suggest possible ways forward. The outcome of this piece of work will inform the direction the GCB will take on this issue.

Business Case

The Green Construction Board needs to continue to articulate the business case for sustainable and low carbon construction. It will do this from case studies drawn from the work above but also from sources such as the Prime Ministers Better Public Building Award. There will be a particular focus on SMEs.
c) “Commitment Tree”

This broad range of activity is already generating a broad range of commitments to reduce carbon and reduce costs. Increasingly these “commitments” will come from many more sources.

It is important to be able to demonstrate the progress being made on the low carbon and sustainable construction agenda. WRAP has developed a database on which all the various “pledges” made to the Green Construction Board can be logged and reported on. While Construction 2025’s central focus is carbon reduction, the “pledge” tree can also contain commitments and activities looking at waste reduction, improved resource efficiency and water risk. The commitment tree is able to fulfil the action in Construction 2025 for construction businesses to commit to a resource efficiency voluntary agreement.

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