

Building Carbon Footprinting Services Reducing the carbon impact of your developments



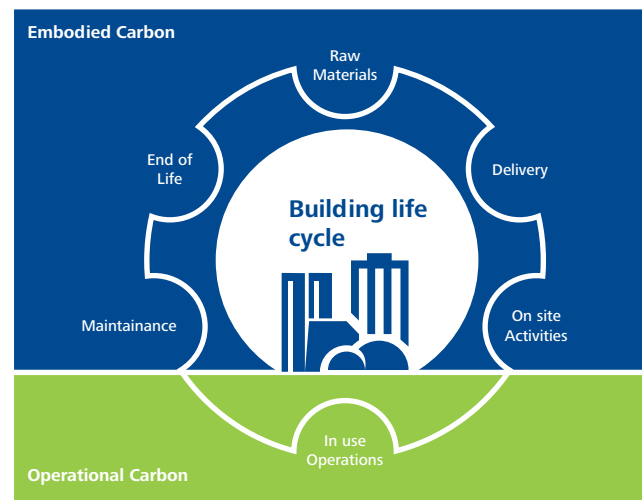
Traditionally the building and construction sector has focused on reducing in-use carbon emissions associated with cooling, ventilation, lighting and small power from the operation of a building. However, over the lifecycle of a building, the operational emissions can represent just 50% of the total emissions. The remainder comes from the manufacture of construction materials, their delivery to site and onsite works. In addition, further carbon emissions arise from the maintenance of the building such as replacing components, and disposal at the end of its life. By addressing this 'embodied carbon', the construction sector can reduce the emissions in the Australian economy.

Deloitte helps developers and organisations with large real estate portfolios to measure the embodied carbon and cost impact of developments and can advise on low carbon options. The benefits can include:

- Environmental reward at a competitive price – Deloitte has shown that a significant reduction in embodied carbon can be achieved at a competitive cost to business as usual by specifying low carbon concrete for example
- Green Star points – The Green Building Council of Australia is currently trialling building lifecycle assessment as part of the Green Star rating tool. Building Carbon Footprinting therefore provides an additional component to achieve your desired Green Star certification
- Corporate Social Responsibility (CSR) – Addressing the embodied carbon impact of buildings is an emerging concept in Australia. Building carbon footprinting can support your CSR strategy and credentials and may be a point of differentiation.

¹ <http://www.gbca.org.au/project-directory.asp>

http://www.gbca.org.au/uploads/170/34474/A_decade_of_green_building_.pdf



By undertaking a building lifecycle assessment you may be awarded up to 6 points in the Green Star Innovation category¹

How Deloitte can help

We provide a range of services to assist you in reducing the carbon impact of your developments:

Building carbon footprint assessment

- Deloitte have developed a Building Carbon Calculator to assess the embodied carbon impact of new build and refurbishment projects throughout the building's lifecycle
- We can identify embodied carbon 'hot spots' in your development to target reduction opportunities. Our experience has shown that concrete and steel can typically account for up to 90% of the embodied carbon impact of a development
- We can calculate the impact of low carbon material alternatives to help inform the building specification
- We can provide you with options to offset the carbon footprint of your development to deliver a carbon neutral development to your client.

Low carbon material cost assessment

- Deloitte can quantify the potential cost impact of low carbon building materials as an alternative to standard materials. For example, the impact of specifying low carbon concrete that incorporates industrial by products as a replacement to Portland cement.

Supply chain workshops

- Deloitte can conduct workshops to engage your project supply chain to identify practical low carbon design options based on market experience and provide insights into your building sustainability objectives.

Contact us

For more information on our services, please contact :



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