1 Formal CPD point

Please be aware you are required to manage your own CPD records. We will provide you with your participation certificate and answer sheet once you have attended the full seminar.

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The below answer sheet is for your own self-assessment.
Please keep your completed questionnaires and answers on file for your record.
These do not need to be sent to the AIA or to CPD Live. CPD-Live will send you certificate.

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MEETING THE CLIMATE CHALLENGE – CARBON REDUCTIONS FOR NEW & USED BUILDINGS

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1. Define the term 'Embodied Carbon'

Embodied carbon refers the Greenhouse Gas emissions arising from the production and manufacture of materials and products. This includes all emissions associated with the equipment that makes the materials, intermediate transport, and all other business operations to bring a product to market and installation.

2. What is a Net Zero Embodied Carbon building?

A building is one that achieves the highest level of materials efficiency through rigorous application of circular economy principles, with all residual annualised emissions being offset on site to achieve net zero across a defensible design life span.

3. What are the global commitment timeframes to Net Zero by the main Architect Institutes globally?

AIA Net Zero by 2040 - immediate cut of 40%; RIBA - Net Zero by 2040. Arch Declare - Net Zero by 2040; GBCA - Net Zero by 2030.

4. How much embodied carbon is 1m2 NFA of: an A-grade office building; a Regional Shopping Centre; the average project home?

- 2.65TcOC2-e/m2 NFA
- 2.55 TCO2-e/m2 GLAR
- 1.4 TCO2-e/m2 NHA

5. Outline in sequence the principles that should be applied to every project in order to minimise embodied carbon.

No-build (i.e. decide if building is necessary) > dematerialize > reuse > recycle > leverage supply chain and procurement methods.

6. Conversations between designer and client represent a critical element of low carbon design. What should these discussions include?

Basic process is material quantity multiplied by carbon factor for the product or assembly. Using an embodied carbon calculator or research factors and creating your own calculation.

Competency Codes: Project initiation and conceptual design detailed PC 35, Design and construction documentation PC 39/PC 45