

CWCT

CWCT Sustainability Introduction

David Metcalfe, CWCT
John Downes, Lendlease, Chair, CWCT Sustainability Committee

1

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Our journey so far....

- ▶ We've come a long way in a short time,
 - ▶ 1st publication October 2021,
 - ▶ 7 further publications,
 - ▶ Journal articles,
 - ▶ Workstreams,
 - ▶ More to come,
- ▶ This is thanks to the hard work, knowledge and passion of everyone involved.

CIBSE

How to calculate the embodied carbon of facades: A methodology



carbon in

High embodied carbon building technology is being considered in the building reports

2

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Thank yous

- ▶ Sustainability committee
 - ▶ John Downes, Lendlease, Chair
 - ▶ Mark Foster, Allies and Morrison
 - ▶ Ed Forwood, Arup
 - ▶ Damian Rogan, Eckersley O'Callaghan
 - ▶ Gary Ledger, Kawneer
 - ▶ Henk de Bleeker, Permasteelisa
 - ▶ Leandro Heine, Thornton Tomasetti
- ▶ CWCT Sustainability Engineers
 - ▶ Will Wild, Arup
 - ▶ Teni Ladipo, Buro Happold

- ▶ Workstream leaders
 - ▶ Anna Wendt, Buro Happold
 - ▶ Hugh McGilveray, Eckersley O'Callaghan
 - ▶ Ed Forwood, Arup
 - ▶ Simon Pierce, Mott MacDonald
 - ▶ Aneel Kilaire, Ramboll
 - ▶ Jim Rowley, Laing O'Rourke
- ▶ Workstream members
- ▶ Reviewers


3

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Lots still to do....

- ▶ Feedback
 - ▶ Updates
- ▶ More workstreams
- ▶ Further guidance
 - ▶ What is needed?
 - ▶ What should we prioritise?
- ▶ Training
- ▶ Promotion
- ▶ Finally, help spread the word.



4

CWCT AGM 2022

2020

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CWCT Virtual Members Meeting 2020 – The path to Zero Carbon – An Industry Perspective

Net Carbon Zero

Carbon

Net Zero Carbon

Net Carbon Zero

Absolute Carbon Zero

2019

In it together?

Why is it the time for CWCT 2020 members meeting?

A Global Britain

ARE WE THERE YET?

We have had 1 year since legislation has been introduced. What have we done collectively? As an industry what have we produced? Am I being too hard on everyone?

Safety

Sustainability

Zero Carbon Round Up

- How, as an industry, are we going to respond to the Climate Emergency?
- Are we going to prepare a Roadmap to Zero Carbon?
- What is the CWCT's role?

5

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2022 Health Check

CWCT Sustainability Committee ✓

Leadership ✓

Education and Guidance ✓

Knowledge and Thought Focus ✓

Galvanised our Industry into responding to the Climate Emergency ✓

Challenged each other and need to continue to do so ✓

We are encouraging our next generation of leaders to come forward and take ownership ✓

Are we there?

Are we there yet??

6

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CWCT Sustainability Sub Committee Update – Secondment

- Will and Teni have been seconded to the CWCT end of 2021 and into 2022 – both 6 month secondments.
- Will was Nov '21 to April '22.
- Teni is April '22 to Oct '22.
- These secondments have been hugely successful with a lot of the published content attributable to these very talented individuals.

Will Wild, Senior Facade Engineer, Arup

Teni Ladipo, Senior Facade Consultant Buro Happold

7

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CWCT Secondment Work Update


- UWE MSc lecture 2022 - Will and Teni
- EC Methodology Workstream involvement
- Workstream meeting attendances
- Upcoming articles / work:
 - CIBSE journal – July 6th 2022 issue
 - Adaption article – recently published
 - EC Methodology Primer Paper being produced.
 - RIBA Journal article
 - Balancing Embodied and Operational Carbon – recently published


8

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How to calculate the embodied carbon of facades: A methodology







Anusha Badrinarayanan, Sustainability Engineer, Lendlease




Anna Wendt, Partner, Global Director Facades, Buro Happold




Duncan Cox, Senior Associate, Sustainability, Thornton Tomasetti




Gianluca Rapone, Associate Sustainability Lead, FMDC



Medha Gayathri Nilayamgode, Sustainability, Wintech



Teri Ladipo, Senior Facade Consultant, Buro Happold



Will Wild, Senior Facade Engineer, Arup

9

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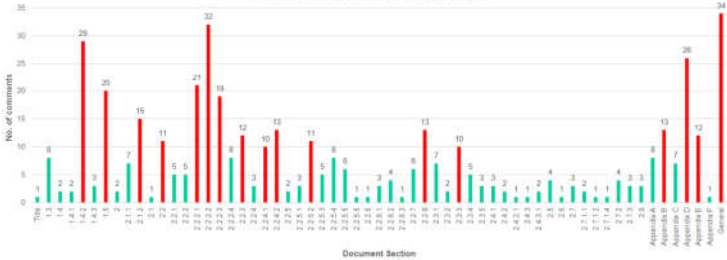
Workstream 1 Embodied Carbon Calculation Methodology

Methodology Peer Review Comments

701 total comments received

- 477 'discussion' comments
- 224 'minor' comments

Discussion Comments per Document Section





10

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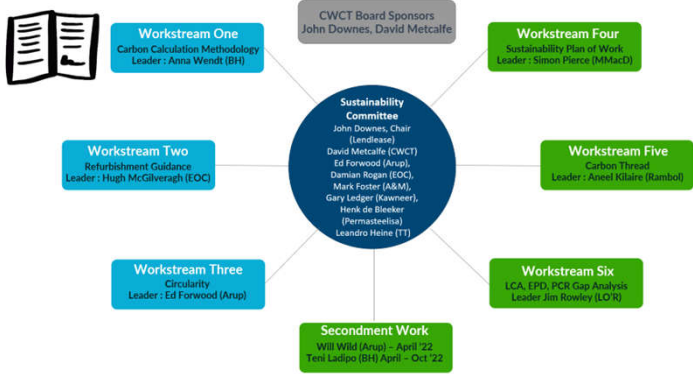
Will Wild, Senior Facade Engineer, Arup

11

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CWCT Sustainability Sub Committee Workstreams



12

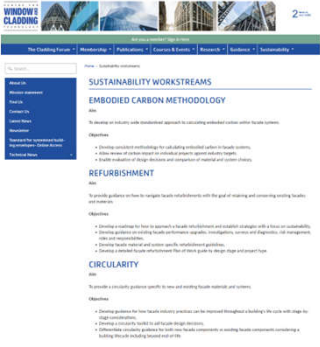
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3

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CWCT Sustainability Sub Committee Workstreams



PLAN OF WORK

Aim

To form a centralised summary of CWCT sustainability initiatives, communicating to industry what guidance is available and what is actively being developed in addition to providing links to work by the other CWCT Sustainability Workstreams.

Objectives

- Develop a Plan of Work Template Guide for the building industry
- Develop a detailed Developed Plan of Work guide for construction professionals and building specialists

CARBON THREAD

Aim

To improve the calculation processes of carbon emissions associated with the building fabric to allow for more accurate quantification of carbon emissions.

Objectives

- Develop Part 1: compliance calculation guidance for fabric performance
- Provide guidance for accurate analysis and consideration of other building elements in thermal and energy assessments
- Develop thermal bridge calculation guidance to improve accuracy
- Develop a detailed Carbon emissions assessment Plan of Work guide for design stage and project type

LCA, EPD, PCR GAP ANALYSIS

Aim

To provide guidance on how to analyse and apply EPDs and PCRs for building products in LCA considering current industry capabilities and limitations.

Objectives

- Develop guidance on the relationship between LCA, PCRs, and EPDs, and the current state of this for building products
- Develop guidance on the relationship between LCA, PCRs, and EPDs, and the current state of this for building products
- Develop guidance and provide considerations for how to apply different types of EPDs for use in building LCA

13

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OUR TEAM

The CWCT Carbon Warriors

AHMM	Alinea	Allies and Morrison	Arup
ASFD	Brookfield Properties	Buro Happold	CAB
Cambridge University	Clearline	Cundall	CWCT
Dane Architectural Systems Holdings Limited	Eckersley O'Callaghan	Etude	FKN Group
FMDC	Guardian	Hawkins Brown	HDRINC
Hydro Group	Kawneer	Laing O' Rourke	Lendlease
Mace	Mott MacDonald	Paye	Permasteelisa Group
Ramboll	RIBA	Saint Gobain	Skelly and Couch
Skidmore, Owings & Merrill	Staticus	Thornton Tomasetti	Wintech
	WSP		

1 Ambition, 12 Leaders, 37 Companies, 75 Contributors

14

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CWCT Sustainability Short Term Look Ahead



- Workstreams continue meeting every 2 weeks
- Sustainability oversight committee to meet again on What's next, Trends, Industry health check
- All hands meeting for all sustainability workstream members on Friday 22nd July was well received. We are scheduling another given the success of the last one to continue the momentum.
- Secondment – we are continuing this initiative and looking at Teni's successor. Please let us know if you or a colleague are interested in a possible secondment in the future.
- Zak London Nov '22 – CWCT led panel discussion on Sustainability

15


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CWCT Sustainability Sub Committee Future Work



- We would like to hear from you – what should we be concentrating on next?
- Why not join in the fun, participate, be a part of solving the jigsaw!
- If you are not at the table, it's difficult to be the change.
- Don't leave it to others
- We have come together to discuss some future initiatives
- Whole Life Assessment, moving on from carbon, training on embodied carbon (how/who/different level), Industry engagement (Top down / bottom up), material performance required to meet future targets



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16