

Whole-life carbon assessment

Commission an assessment that informs design choices and remains useful through delivery.

Version 1.0 | Prepared and reviewed: 9 September 2026 | 5-minute read

Status: Professional assessment method; planning and contractual requirements vary.

Audience: Developers, asset owners, project managers, designers and contractor commercial teams.

Executive summary

Whole-life carbon assessment (WLCA) helps a project team compare the emissions consequences of building, operating, maintaining and eventually removing an asset.^[1] Its value depends on a clear brief and comparable assumptions, not just a headline total. Use it early enough to influence retention, design and specification decisions, then update it as quantities and products become clearer. The Royal Institution of Chartered Surveyors (RICS) method is a professional standard; planning authorities and clients may add their own requirements. Commission the assessment around the decision you need to make.

Start here. Ask the project sponsor to define the decision, assessment boundary, required method and design stages before appointing the assessor.

In plain terms. An assessment follows the asset through its life. Lower construction emissions may come with higher energy or replacement needs later. Compare options providing equivalent service, using consistent assumptions about the asset's operating life and intensity of use.

Read the lifecycle results correctly

Stage	What the assessment covers
Upfront: A0-A5	Products, transport and construction, plus pre-construction (A0), generally assumed zero for buildings. ^[1]
In use: B1-B7	Materials in use, maintenance, repair, replacement, refurbishment, energy (B6) and water (B7). ^[1]
End of life: C1-C4	Deconstruction, transport, waste processing and disposal. ^[1]
Beyond the boundary: D	Potential benefits and loads beyond the assessed system, reported separately from A-C. ^[1]

Specify a method and a decision

RICS second edition, Version 3 (August 2024), is current. RICS members undertaking WLCA must follow its requirements and identify departures; any assessor claiming conformity must meet mandatory requirements.^[2] London Plan Policy SI 2 requires WLCA for applications referable to the Mayor. Check each project's planning and contract requirements.^[3]

Specify the reference study period, meaning years modelled, and floor-area basis. RICS uses 60 years for domestic and non-domestic projects; infrastructure and standalone fit-outs have different rules.^[1] Ask for quantities, exclusions, replacement cycles, energy scenarios and uncertainty alongside the results.

Example in practice

Illustrative example: a developer compares retaining an office frame with replacement. The assessor aligns capacity, study period and energy assumptions, identifies strengthening works, and reports upfront and later emissions separately. The team then tests whether its preference survives plausible changes.

Recommended actions

A practical way to start, with suggested owners and timing:

1. **Write the assessment brief.** Name the decision, standard version, project scope, reporting stages and deliverables. Agree who supplies quantities and who can approve assumptions or departures. *Client project manager, before appointment.*
2. **Compare credible options.** Include retention and reuse where feasible. Record equivalent performance requirements, carbon and cost consequences, and the reasons an option is selected or rejected. *Design lead and assessor, early design.*
3. **Build the evidence register.** Connect quantities to drawings and product data. Record units, coverage and Environmental Product Declaration references, highlighting substitutions that need further technical checking. *Quantity surveyor and procurement, before specification.*
4. **Update the assessment.** Keep a change log for quantities, specifications and assumptions. Replace estimates with available delivery evidence and explain changes from the approved design baseline. *Project manager, at design changes and handover.*
5. **Review the outputs.** Check lifecycle coverage, calculation units and uncertainty. Ask for the underlying assumptions and a clear conformity statement, including departures, before using the results in an external claim. *Client and assessor, before acceptance.*

Common mistakes and what to do instead

- Comparing kgCO₂e/m² figures with different areas or periods: align the bases before ranking options.
- Calling product-stage A1-A3 emissions whole-life carbon: show the lifecycle stages actually assessed.
- Treating an early estimate as the final result: update it when the design or evidence changes.

How Reinventives can help

Reinventives can help prepare the assessment brief, organise quantity and product evidence, and coordinate the reporting process across the project team. A first deliverable can be a data and assumptions register linked to design responsibilities. Appropriately qualified lifecycle assessment and engineering specialists should undertake the technical assessment and any required formal sign-off.

Book a construction reporting conversation: reinventives.co.uk/construction/book

Related briefing notes: [BN005 Embodied carbon](#) | [BN006 EPDs](#) | [BN003 PAS 2080](#)

Reading the units. kgCO₂e/m² means kilograms of carbon dioxide equivalent per square metre. State how user activities (B8) are treated. Upfront results exclude biogenic carbon stored in installed products; report that storage separately and account for later release.^[1]

Sources and review dates

[1] RICS, Whole life carbon assessment, 2nd edition, Version 3, August 2024; sections 2 and 4.

[2] RICS, current WLCA implementation guidance and FAQs; effective from 1 July 2024.

[3] GLA, Whole Life-Cycle Carbon Assessments guidance, March 2022; sections 1-2.

Correct as of and sources accessed 9 September 2026 | Next review 9 December 2026

Review earlier if RICS revises the method, or a relevant planning policy, client brief or project scope changes.

This briefing is general information, not legal, procurement, engineering or assurance advice. Requirements should be checked for the specific organisation, project and contract.