

Greater London Authority - Whole Life-Cycle Carbon (WLC) Assessment template

HOW TO USE THIS SPREADSHEET

This template should be used by planning applicants to fulfil the requirements of the Mayor's Whole Life-Cycle Carbon assessment policy set out in London Plan Policy SI 2. Before completing and submitting this spreadsheet to the GLA, applicants should read the Whole Life-Cycle Carbon Assessment guidance:

<https://www.london.gov.uk/what-we-do/planning/implementing-london-plan/planning-guidance/whole-life-cycle-carbon-assessments-guidance-pre-consultation-draft>

Applicants are required to submit WLC information to the GLA at the following three stages: pre-application, outline/detailed planning submission and post-construction. Separate tabs are provided in this spreadsheet for each stage. An outline of the information required at each stage and how to submit it is provided below.

1. Pre-application stage

At pre-application stage, applicants are required to complete the pre-application information tab of this template which requires applicants to confirm various details about the site and to provide details of the WLC principles which are informing the development of the site. This should be submitted to the GLA along with all other pre-application material.

2. Outline/detailed planning submission stage

At this stage, applicants are required to complete the outline or detailed planning stage tab of this template (whichever is relevant) and submit it to the GLA along with their planning application. This stage of the process requires a baseline WLC assessment against each life-cycle module to be undertaken. At outline stage this can be based on default figures from the RICS Professional Statement: Whole Life Carbon assessment for the built environment. At detailed stage this should be based on bespoke building assumptions. Applicants are required to undertake two assessments; the first accounts for the current status of the electricity grid and the second accounts for its expected decarbonisation. Applicants may determine which assessment is to form the basis of design decisions (which should be confirmed in the relevant cell) but both assessments should be completed. This spreadsheet allows for both assessments to be provided.

3. Post-construction stage

At the final stage of the WLC assessment process, applicants should complete the post-construction result tab of this template and submit it to the GLA within three months of practical completion. This will require an update of the information provided at planning submission stage and for the actual WLC carbon emission figures to be reported using actual material quantities and site emissions during construction. Information should be submitted to:

ZeroCarbonPlanning@london.gov.uk

QUERIES

Any queries or feedback on this template should be submitted to:

ZeroCarbonPlanning@london.gov.uk

Project details	
Project name	
Planning application reference number (if applicable)	
Use Type	
Brief description of the project	
GIA (m ²)	
Authors (organisation or individuals)	
Date of assessment	

WLC reduction principles	Key benefits	Has this principle been adopted? (Y/N)	If yes provide examples, and if no please provide reasons for this
1 Reuse and retrofit of existing buildings	Significant retention and reuse of structures is carbon efficient and reduces construction costs.		
2 Use recycled or repurposed material	Reduces carbon emissions and reduces waste.		
3 Material selection	Appropriate material choices is key to carbon reduction. Ensuring that there is synchronicity between materials selected and planned life expectancy of the building reduces waste and the need for replacement, thus reducing in use costs.		
4 Minimise operational energy use	A 'fabric first' approach should be prioritised to minimise energy demand and reduce carbon and in-use costs.		
5 Minimise operational water use	Choice of materials and durability of systems, to avoid leakage and subsequent building damage, contribute to reducing the carbon cost of water use.		
6 Disassembly and reuse	Designing for future disassembly ensures that products do not become future waste, and maintain their environmental and economic value.		
7 Building shape and form	Compact efficient shapes help minimise both operational and embodied carbon emissions for a given floor area. This means a more efficient building overall resulting in lower construction and in use costs.		
8 Regenerative design	Removing CO ₂ from the atmosphere through materials and systems absorbing it makes a direct positive contribution to carbon reduction.		
9 Designing for durability and flexibility	Durability means that repair and replacement is reduced which in turn helps reduce life-time building costs. A building designed for flexibility can respond with minimum environmental impact to future changing requirements and a changing climate, thus avoiding obsolescence which also underwrites future building value.		
10 Optimisation of the relationship between operational and embodied carbon	Optimising the operational/embodied carbon relationship contributes directly to resource efficiency and overall cost reduction.		
11 Building life expectancy	Defining building life expectancy gives guidance to project teams as to the most efficient choices for materials and products. This aids overall resource efficiency, including cost efficiency and helps future proof asset value.		
12 Local sourcing	Sourcing local materials reduces transport distances and supply chain lengths and has associated local social and economic benefits.		
13 Minimising waste	Waste represents an unnecessary and avoidable carbon cost. Buildings should be designed to minimise fabrication and construction waste, and to ease repair and replacement with minimum waste, which helps reduce initial and in-use costs.		
14 Efficient fabrication	Efficient construction methods (e.g. modular systems, precision manufacturing and modern methods of construction) contribute to better build quality, reduce construction phase waste and reduce the need for repairs during post completion and the defects period (snagging).		
15 Lightweight construction	Lightweight construction uses less material which reduces the carbon footprint of the building as there is less material to source, fabricate and deliver to site.		
16 Circular economy	The circular economy principle focusses on a more efficient use of materials which in turn leads to carbon and financial efficiencies.		

1		2										3		4	
A		B										C		D	
E		F										G		H	
I		J										K		L	
M		N										O		P	
Q		R										S		T	
U		V										W		X	
Y		Z										AA		AB	

Footnote 1: Description of data for both columns and operational status...
Footnote 2: Description of data for both columns and operational status...
Footnote 3: Description of data for both columns and operational status...

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Project Information	
Project Name:	...
Client:	...
Location:	...
Start Date:	...
End Date:	...

Period	2019	2020	2021	2022	2023
Revenue
Operating Expenses

Period	2019	2020	2021	2022	2023
Revenue
Operating Expenses

Component	Value	Notes
...
...

Item	Description	Quantity	Unit	Material	Financials	
					Cost	Revenue
...
...

Continue with another Assessment 1 Assessment 2 for items B to W in the basis of design document

ASSESSMENT 1 - current status of the electricity grid

Input Voltage (V)	Output Voltage (V)	Power (W)	Line range (kV)												Total Power (W)	Efficiency (%)		
			Branch A				Branch B				Branch C							
230V	230V	1000

ASSESSMENT 2 - expected decentralisation of the electricity grid

Input Voltage (V)	Output Voltage (V)	Power (W)	Line range (kV)												Total Power (W)	Efficiency (%)		
			Branch A				Branch B				Branch C							
230V	230V	1000

Project details table with columns for project name, location, and dates.

Table with 6 columns: Assessment Item, Assessment Criteria, and Assessment Score.

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Confirm here whether Assessment 1 or Assessment 2 formed the basis of design decisions

Table with 2 columns: Assessment Item and Assessment Score.

Table with multiple columns for material types, quantities, and assessment criteria.

ASSESSMENT 1 - current status of the electricity grid

Large grid table with multiple columns for assessment items and scores.

ASSESSMENT 2 - expected decarbonisation of the electricity grid

Large grid table with multiple columns for assessment items and scores.

1	2	3							4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
		21	22	23	24	25	26	27																		

* If you have released a reference study period or self-CO2 because the estimated building life expectancy is greater or less than 50 years, this table should be updated and published using the actual assumed life expectancy. This should be done for both CO2 reporting dates and should be clearly marked.

2023-12-31