

Energy and Carbon Proforma

Introduction
Version 1.0

What is the Energy and Carbon Proforma

The Energy and Carbon Proforma is a tool to summarise the energy and carbon performance of a project. It requires information to be completed on the themes listed in the Energy and Carbon Framework.

Why the Energy and Carbon Proforma is important

The energy and carbon proforma eases communication between applicants and planning officers, helping to determine if the full potential of a project from an energy and carbon perspective has been reached. If it has not, the proforma helps to easily identify where the development could be improved. Focusing on design solutions alleviates the financial pressure of costly solutions, encouraging the viability of developments without

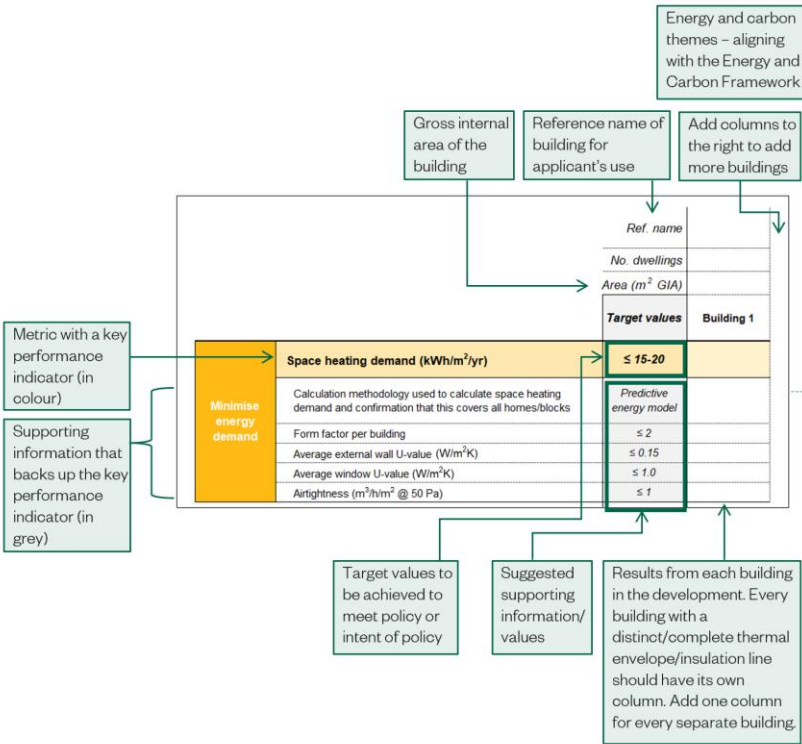
Content of the Energy and Carbon Proforma

There are six Energy and Carbon Proformas: three for residential developments and three for non-residential developments. The level of information required varies depending on type and size of development, but the overall structure remains the same, requiring data across the following themes:

- Minimise energy demand
- Maximising energy efficiency (omitted for small minor development)
- Use renewable energy
- Use low carbon energy
- Reduce overheating risk
- Minimise embodied carbon
- Offsets (omitted for small minor development)

Energy and Carbon Proforma quick-start

Refer to the accompanying Submissions Guidance for further information. The below explains how the Energy and Carbon Proforma is set out.



Energy and Carbon Proforma		GMCA GREATER MANCHESTER COMBINED AUTHORITY	
Residential			
Major development (>10 homes)			
Project name: Application ref: Date:			
		Ref. name	
		No. dwellings	
		Area (m² GIA)	
		Target values	Building 1
Minimise energy demand	Space heating demand (kWh/m²/yr)	≤ 15 (flats) ≤ 20 (houses)	
	Calculation methodology used to calculate space heating demand and confirmation that this covers all homes/blocks	Predictive energy model	
	Form factor per building	≤ 2	
	Average external wall U-value (W/m²K)	≤ 0.15	
	Average window U-value (W/m²K)	≤ 1.0	
Maximise energy efficiency	Energy use intensity (kWh/m²/yr)	≤ 35	
	Calculation methodology used to calculate energy use intensity and confirmation that this covers all homes/blocks	Predictive energy model	
	Form factor per building	≤ 2	
	Average external wall U-value (W/m²K)	≤ 0.15	
	Average window U-value (W/m²K)	≤ 1.0	
Use renewable energy	PV footprint area (% of ground floor space)	≥ 40	
	Annual renewable energy generation (kWh/m² building footprint/yr)	-	
	Renewable energy balance (%)	-	
	Total energy used (kWh/yr)	-	
	Total energy generated on-site (kWh/yr)	-	
Use low carbon energy	Fossil fuel free (yes/no)	Yes	
	Heat source	Electric	
	Low Carbon Heat Appraisal completed	Yes	
	Heat network suitability	Yes	
	Exemption requested	-	
Reduce overheating risk	Efficiency of heating system (SCOP)	≥ 3.5	
	Carbon content of heat (gCO₂/kWh)	≤ 100	
	Have Part O overheating requirements been met without the use of mechanical cooling?	Yes	
	If no, how many homes are cooled?	Yes	
	Has a CIBSE TM59 assessment been carried out using DSY2 and DSY3 weather files? Have any additional passive measures been included as a result?	Yes	
Minimise embodied carbon	Upfront embodied carbon (kgCO₂e/m² GIA)	≤ 500-600	
	List top three materials with the highest upfront embodied carbon emissions (kgCO₂e/m² GIA) - Material 1	-	
	Material 2	-	
	Material 3	-	
	Lifecycle embodied carbon (kgCO₂e/m² GIA) - for large major developments only	-	
Offsets		Offset contribution (£)	-

Energy and Carbon Proforma

Non-residential

Major development (+1,000m²)

Version 1.0

Project Name: Joyce

Application ref:

Date: 06/06/2025

		Ref. name	Joyce
		Area (m ² GIA)	11433
		Target values	Building 1
Minimise energy demand	Space heating demand (kWh/m ² GIA/yr)	≤ 15	4.24
	Space cooling demand (kWh/m ² GIA/yr)	≤ 15	8.37
	Calculation methodology used to calculate space heating demand and confirmation that this covers all homes/blocks	Predictive energy model	TM54
	Form factor per building	≤ 2	0.71
	Average external wall U-value (W/m ² K)	≤ 0.15	0.15-0.3
	Average window U-value (W/m ² K)	≤ 1 (triple)	1.2
	Air permeability rate (m ³ /h/m ² @ 50 Pa)	≤ 1	3
Maximise energy efficiency	BREEAM Ene 01 rating	Excellent	
	Energy use intensity (kWh/m ² GIA/yr)	-	81
	Calculation methodology used to calculate energy use intensity and confirmation that this covers all homes/blocks	Predictive energy model	TM54
Use renewable energy	PV footprint area (% of ground floor space)	-	5.20%
	Annual renewable energy generation (kWh/m ² building footprint/yr)	-	12.33
	Renewable energy balance (%)	-	2.43%
	Total energy used (kWh/yr)	-	954,155
	Total energy generated on-site (kWh/yr)	-	23,184
Use low carbon energy	Fossil fuel free (yes/no)	Yes	Yes
	Heat source	Electric	Electric
	Low Carbon Heat Appraisal completed	Yes	Yes
	Heat network suitability	-	No
	Exemption requested	-	Not needed
	Efficiency of heating system (SCOP)	≥ 3.5	3.93
Reduce overheating risk	Carbon content of heat (gCO ₂ /kWh)	≤ 100	16.9
	Has CIBSE TM52 been used to calculate overheating and does the building pass?	Yes	Yes
	What percentage of spaces are cooled? (% of GIA)	-	74%
Minimise embodied carbon	Has a CIBSE TM52 assessment been carried out using DSY2 and DSY3 weather files? Have any additional passive measures been included as a result?	Yes	Yes
	Upfront embodied carbon (kgCO ₂ e/m ² GIA)	-	588
	List top three materials with the highest upfront embodied carbon emissions (kgCO ₂ e/m ² GIA): Material 1	-	110.97
	Material 2	-	107.05
	Material 3	-	73.09
	Lifecycle embodied carbon (kgCO ₂ e/m ² GIA) - for large major developments only	-	1066
Offsets	Offset contribution (£)	-	