

Energy and Carbon Proforma
Non-residential

Major development (+1,000m²)
Version 1.0

Project Name: Great Northern Warehouse

Application ref:

Date: 07/04/2026

This is based on Stage 2 information
and is subject to design development
and ongoing modelling.

		Ref. name	Warehouse	Deasngate North Terrace
		Area (m ² GIA)	29,728	6,472
		Target values	Building 1	Building 2
Minimise energy demand	Space heating demand (kWh/m ² GIA/yr)	≤ 15	24	14
	Space cooling demand (kWh/m ² GIA/yr)	≤ 15	1	1
	Calculation methodology used to calculate space heating demand and confirmation that this covers all homes/blocks	Predictive energy model	Thermal Modelling	Thermal Modelling
	Form factor per building	≤ 2	-	-
	Average external wall U-value (W/m ² K)	≤ 0.15	1.4	0.2
	Average window U-value (W/m ² K)	≤ 1 (triple)	2.9	1.4
	Air permeability rate (m ³ /h/m ² @ 50 Pa)	≤ 1	~ 3	~ 3
Maximise energy efficiency	BREEAM Ene 01 rating	Excellent	On Track	On Track
	Energy use intensity (kWh/m ² GIA/yr)	-	158	100-120
	Calculation methodology used to calculate energy use intensity and confirmation that this covers all homes/blocks	Predictive energy model	IES-VE Part L & TM54	IES-VE Part L
Use renewable energy	PV footprint area (% of ground floor space)	-	18	20
	Annual renewable energy generation (kWh/m ² building footprint/yr)	-	28	38
	Renewable energy balance (%)	-	1.3	7
	Total energy used (kWh/yr)	-	2,700,000	457,000
	Total energy generated on-site (kWh/yr)	-	36,500	31,990
Use low carbon energy	Fossil fuel free (yes/no)	Yes	Yes	Yes
	Heat source	Electric	Electric	Electric
	Low Carbon Heat Appraisal completed	Yes	Yes	Yes
	Heat network suitability	-	N/A	N/A
	Exemption requested	-	N/A	N/A
	Efficiency of heating system (SCOP)	≥ 3.5	>3.86	>3.86
	Carbon content of heat (gCO ₂ /kWh)	≤ 100	33.12	33.42
Reduce overheating risk	Has CIBSE TM52 been used to calculate overheating and does the building pass?	Yes	Yes	Yes
	What percentage of spaces are cooled? (% of GIA)	-	59%	48%
	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	Yes
Minimise embodied carbon	Upfront embodied carbon (kgCO ₂ e/m ² GIA)	-	<450	<450
	List top three materials with the highest upfront embodied carbon emissions (kgCO ₂ e/m ² GIA): Material 1	-	Steel	Steel
	Material 2	-	Concrete	Concrete
	Material 3		Glass	Glass
	Lifecycle embodied carbon (kgCO ₂ e/m ² GIA) - for large major developments only	-	<1,000	<1,000
Offsets	Offset contribution (£)	-	N/A	N/A

Due to the heritage status of the building the opportunity for significant fabric interventions has been constrained. However, sensitive upgrades will be carried out where practical.