

Chapter 11: Climate Change.
Appendix 11.2 – Annual operational carbon
estimate

Table 1 Summary of estimated energy use intensity for the baseline condition

Building Name	Classification	Annual energy consumption benchmarks by classification		GIA m²	Estimated annual carbon emissions tCO ₂ e/m²/yr
		Gas (kWh/m²/yr)	Electricity (kWh/m²/yr)		
Health Centre	Primary health care (GP)	270	N/A	1,313	81.65
Longfield Centre	Retail - clothes shop	108	287	1,985	167.34
Longfield North West	Retail - clothes shop	108	287	741	62.47
Longfield South West	Retail - clothes shop	108	287	1,192	100.49
Iceland	Retail - frozen food	N/A	1,029	841	179.20
Library	Public buildings - libraries	210	46	1,012	58.59
Total				7,084	649.74

Figure 1: Summary of illustrative annual operational carbon emissions per use type

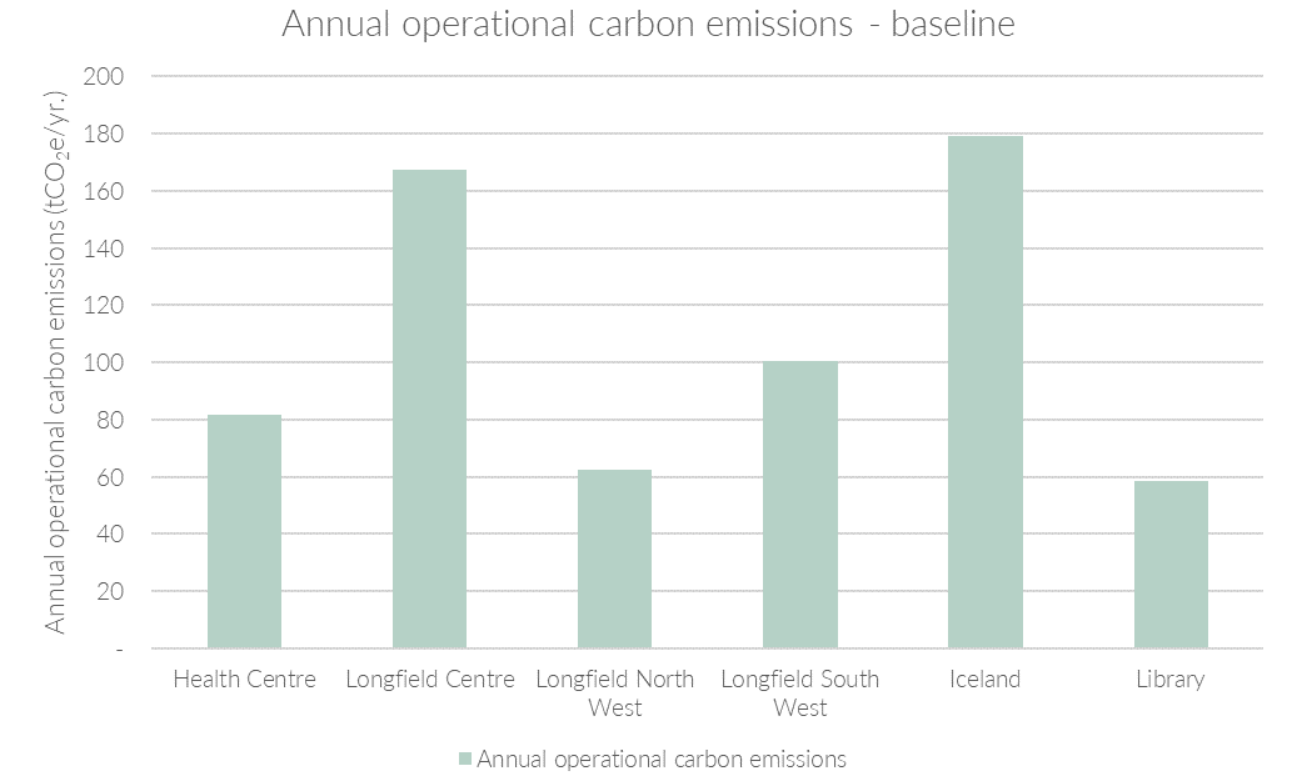


Table 2: Carbon factors applied.

Fuel	DESNZ UK Government GHG conversion Factors for Company Reporting
Grid Electricity	0.20707 kgCO ₂ e/kWh
Natural gas	0.23032 kgCO ₂ e/kWh

Table 3: Summary of illustrative energy use intensity for the Proposed Development

Building Name	Classification	Energy Use intensity targets (all electric)	GIA m²	Estimated annual carbon emissions tCO ₂ e/m²/yr
		kWh/m²/yr		
Plot A	Retail/ Community/ Leisure	76	3,423	53.87
Plot B	Retail/ Leisure	143	2,266	67.10
Plot C	Retail	131	935	25.36
Plot D	Residential/ Retail	50/ 131	6,484	67.13
Plot E	Residential/ Retail	50/ 131	5,544	57.40
Plot F	Residential/ Retail	50/ 131	6,740	69.78
Total			25,392	340.65

Figure 2 Summary of illustrative annual operational carbon emissions per use type

