

Clarence House, Longsight - Energy Statement Calculation Methodology.

Post Construction

Date: 20/04/2022

Regulations and Calculations used:

National Energy Hierarchy, Be Lean, Be Clean, Be Green

Approved Document ADL1A 2013 (New Build)

Approved Document ADL1B 2013 (Refurb / Change of Use)

SAP 2012 – All Calculation carried out by Qualified On Construction Domestic Energy Assessors

MCC Requirement 9% improvement on Part L 2013

To be read in conjunction with CSS Energy Statement ref: 4410 Clarence Road

Overview

We have recently updated our calculations to mirror the current proposals and we confirm the scheme, overall is performing 31.45% above part L 2013.

We have used a site wide approach for our calculations. Currently there is still a significant gap in performance between approved documents L1A & L1B of Part L. If we were to aim for a 9% improvement over all dwellings, in lieu of a site wide approach we would see a significant increase in carbon emissions and an increase in heating bills.

As well as photovoltaic panels and ASHP water cylinders being incorporated within the current design, the developer has also chosen to air test the change of use dwellings. This is not a building regulation requirement and by going beyond the requirements the developer

is able to profoundly increase the efficiency of their building fabric and reduce life cycle carbon emissions associated with the production of additional materials.

Proposed Specifications:

Proposed build specifications	
Existing External Wall New Build External Wall	0.28 to 0.52 W/m2K (Max allowable 0.55 W/m2K) 0.27 W/m2K (Max Allowed 0.30 W/m2K)
Existing Party Wall New Build Party Wall	0.20 W/m2K (Max Allowed 0.50 W/m2K) 0.00 W/m2K (Max Allowed 0.50 W/m2K)
Existing ground floor	Ranges from 0.33W/m2K to 0.52W/m2K (Max Allowed 0.70 W/m2K)
New Flat Roof	0.15 W/m2K (Max Allowed 0.20 W/m2K)
Windows	1.40 W/m2K (Max Allowed 2.0)
Air Permeability	All new build plots to achieve 4.00 (Max Allowed 10) Refurb plot to achieve 10.00
Ventilation	Greenwood CMEV.4 Low Carbon
Heating	Electric Panel Heaters
Hot water	Hot water Cylinder Dimplex ASHP Cylinder
Renewables	2.0 kWp of PV

	Floor Area	% Improvement
L1B Refurb / change of use	1962 m2	39.5%
L1A New Build	522 m2	2.14
Site wide improvement over building regulations = 39.25%		

Results:

L1B Refurb / change of use DER (Proposed Spec DER) / TER (Table 3 DER)– 48.75/80.26 = 39% Improvements

L1A New Build DER /TER -24.66/25.20 =2.14

We have also included multiple compliance documents highlighting the dwelling-by-dwelling performance. Please note with regards to the L1B / Refurb Calcs please ignore the

reference to TER, this is a limitation of the SAP software when using the multiple compliance function in conjunction with L1B.