

Part L1a Compliance Assessment

Mayflower Way Crayfern Homes

Arun District Council

July 2019

Version 1



Introduction

Briary Energy is an independent environmental consultancy with considerable experience in the renewable energy industry.

We are a focused team of professionals committed to securing success for our clients. Our service combines the personal commitment of our staff with the best of modern practices and resources. We provide independent advice within all aspects of Part L of planning for the development industry including the energy sector.

Briary Energy Consultants take an integrated approach to the areas of renewables and other low-carbon energy technologies, offering services from Energy Feasibility Studies, Energy Consumption statements, Ecohomes and Code for Sustainable Homes Assessments, SAP and SBEM Calculations, Pressure Testing and Daylight Calculations.

Crayfern Homes has instructed Briary Energy to undertake SAP Calculations for Mayflower Way .

The project comprises of 24 plots, where compliance will be sought under the Part L1a 2013 Regs using SAP2012. The Standard Assessment Procedure (SAP) is the methodology used by the Government to assess and compare the energy and environmental performance of dwellings.

Its purpose is to provide accurate and reliable assessments of dwelling energy performances that are needed to underpin energy and environmental policy initiatives.



Regulation 25A Compliance

Is there a renewable energy policy in place as a part of the local or neighbourhood plan? YES/NO

Is there a District Heating System in place? YES/NO

Have Fabric First considerations been met (Part L compliance)? YES/NO

Please contact info@briaryenergy.co.uk if you require a full 25A energy statement or feasibility report.



Proposed Specification

Ground Floor	0.18-0.19 (P/A)	Thermal Bridging	Calculated Details
65mm Screed, 100mm Platinum EPS, Beam & Block		Renewables/Low Carbon	N/A
External Wall	0.24 W/m ² K	Heating	Daikin Air Source Heat Pump on all plots
102.5mm Brick, 140mm Knauf Omnifit Slab between studs, Plasterboard & Skim			
Insulation at Joists	0.12 W/m ² K		
350mm mineral wool			
Insulation at Rafters	0.16 W/m ² K	Ventilation	System 1 Intermittent Fans
120mm Celotex between rafters, 20mm Celotex below, Plasterboard & Skim		Lighting	100% low energy lighting. Low energy lights are defined as any light with an efficacy greater than 45 lamp lumens per 5.1 m ³ /hm ² (@50Pa)
Dormer Cheeks	0.21 W/m ² K		
80mm Cavity between studs, 60mm Celotex between studs, 30mm Celotex over studs		Design Air Permeability	Flow restrictors and sanitary fittings specified, Part G water calculation
Double Glazing	1.40 W/m ² K	Internal Water Spec	
External Doors	1.20 W/m ² K		

Additional information

Daikin Air Source Heat Pumps on all plots.

Site Totals

Total Target Emission Rate: 95,340 kgCO₂ per year

Total Dwelling Emission Rate: 72,816 kgCO₂ per year

This shows an overall reduction of 22,524 kgCO₂ per year from the development. This is a 23.6% reduction overall.

Total Target Fabric Energy Efficiency: 230,806 kgCO₂ per year

Total Dwelling Fabric Energy Efficiency: 190,985 kgCO₂ per year

This shows an overall reduction of 39,821 kgCO₂ per year from the development. This is a 17.3% reduction overall.

Should the above recommendations not be followed, compliance may not be achieved. This could result in the Building Control Authority not signing off the development. To enable us to provide the as-built SAP Calculation and EPC, we will require confirmation in writing that the property has been built according to the plans/specifications.

Please contact us before choosing your boiler so we can check compliance.

Results

Plot	DER	TER	Reduction	DFEE	TFEE	Reduction	SAP	EI	Heating System	Cylinder
Plot 001 - SD	23.12	26.94	14.2%	45.30	53.00	14.5%	C 80	81	ltherma ERLQ011CAV3 + EHBH11CB3V F	166l
Plot 002 - SD	22.96	26.70	14.0%	44.70	52.20	14.4%	C 80	82	ltherma ERLQ011CAV3 + EHBH11CB3V F	166l
Plot 003 - SD	22.96	26.70	14.0%	44.70	52.20	14.4%	C 80	82	ltherma ERLQ011CAV3 + EHBH11CB3V F	166l
Plot 004 - SD	22.96	26.70	14.0%	44.70	52.20	14.4%	C 80	82	ltherma ERLQ011CAV3 + EHBH11CB3V F	166l
Plot 005 - D	15.51	21.46	27.7%	45.40	56.50	19.6%	B 81	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 006 - D	15.93	21.27	25.1%	45.60	52.90	13.8%	B 82	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 007 - D	15.93	21.27	25.1%	45.60	52.90	13.8%	B 82	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 008 - D	15.51	21.46	27.7%	45.40	56.50	19.6%	B 81	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 009 - D	15.61	21.60	27.7%	45.90	57.00	19.5%	B 81	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 010 - D	15.61	21.60	27.7%	45.90	57.00	19.5%	B 81	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 011 - D	15.66	21.71	27.9%	46.00	57.40	19.9%	B 81	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 012 - SD	14.80	19.42	23.8%	38.00	46.60	18.5%	B 83	84	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 013 - SD	14.98	19.74	24.1%	38.80	47.70	18.7%	B 83	84	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 014 - D	15.80	21.07	25.0%	44.90	52.20	14.0%	B 82	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 015 - D	15.62	20.75	24.7%	44.10	51.10	13.7%	B 82	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 016 - SD	14.88	19.57	24.0%	38.40	47.10	18.5%	B 83	84	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 017 - SD	14.88	19.74	24.6%	39.90	47.70	16.4%	B 83	84	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 018 - D	15.61	21.60	27.7%	45.90	57.00	19.5%	B 81	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 019 - SD	22.69	26.35	13.9%	44.40	51.40	13.6%	C 80	82	ltherma ERLQ011CAV3 + EHBH11CB3V F	166l
Plot 020 - SD	22.69	26.35	13.9%	44.40	51.40	13.6%	C 80	82	ltherma ERLQ011CAV3 + EHBH11CB3V F	166l
Plot 021 - SD	16.11	20.58	21.7%	39.50	48.30	18.2%	B 82	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 022 - SD	16.11	20.58	21.7%	39.50	48.30	18.2%	B 82	83	ltherma ERLQ011CAV3 + EHBH11CB3V F	300l
Plot 023 - SD	22.69	26.35	13.9%	44.40	51.40	13.6%	C 80	82	ltherma ERLQ011CAV3 + EHBH11CB3V F	166l
Plot 024 - SD	22.69	26.35	13.9%	44.40	51.40	13.6%	C 80	82	ltherma ERLQ011CAV3 + EHBH11CB3V F	166l