

BASIC COMPLIANCE REPORT

Calculation Type: New Build (As Built)

Property Reference	D1931-H2	Issued on Date	19/08/2020
Assessment Reference	As built	Prop Type Ref	
Property	45, Kingsway, MANCHESTER, M19 2BZ		
SAP Rating	85 B	DER	16.07
Environmental	86 B	TER	16.11
CO ₂ Emissions (t/year)	1.63	% DER<TER	0.27
General Requirements Compliance	Pass	DFEE	46.52
		TFEE	51.42
		% DFEE<TFEE	9.54
Assessor Details	Mr. Neil Unsworth, Bridgewater Energy Limited, Tel: 01942 888092, neil@bridgewaterenergy.co.uk		Assessor ID
			5906-0001
Client			

SUMMARY FOR INPUT DATA FOR New Build (As Built)

Criterion 1 – Achieving the TER and TFEE rate

1a TER and DER

Fuel for main heating	Mains gas		
Fuel factor	1.00 (mains gas)		
Target Carbon Dioxide Emission Rate (TER)	16.11	kgCO ₂ /m ²	
Dwelling Carbon Dioxide Emission Rate (DER)	16.07	kgCO ₂ /m ²	Pass
	-0.04 (-0.2%)	kgCO ₂ /m ²	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	51.42	kWh/m ² /yr	
Dwelling Fabric Energy Efficiency (DFEE)	46.52	kWh/m ² /yr	
	-4.9 (-9.5%)	kWh/m ² /yr	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.22 (max. 0.30)	0.28 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.17 (max. 0.25)	0.17 (max. 0.70)	Pass
Roof	0.15 (max. 0.20)	0.20 (max. 0.35)	Pass
Openings	1.37 (max. 2.00)	1.40 (max. 3.30)	Pass

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	8.18 (average for dwelling type)	
Maximum	10.0	Pass

Limiting System Efficiencies

4 Heating efficiency

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Main heating system

Boiler system with radiators or underfloor - Mains gas
Data from database
Vaillant ecoFIT sustain 830 VUW 306/6-3 (H-GB)
Combi boiler
Efficiency: 89.3% SEDBUK2009
Minimum: 88.0%

Pass

Secondary heating system

None

5 Cylinder insulation

Hot water storage

No cylinder

6 Controls

Space heating controls

Programmer, room thermostat and TRVs

Pass

Hot water controls

No cylinder

Boiler interlock

Yes

Pass

7 Low energy lights

Percentage of fixed lights with low-energy fittings

100 %

Minimum

75 %

Pass

8 Mechanical ventilation

Not applicable

Criterion 3 – Limiting the effects of heat gains in summer

9 Summertime temperature

Overheating risk (West Pennines (England))

Slight

Pass

Based on:

Overshading

Average

Windows facing North East

4.19 m², No overhang

Windows facing South East

7.58 m², No overhang

Windows facing North West

8.49 m², No overhang

Air change rate

4.00 ach

Blinds/curtains

None

Criterion 4 – Building performance consistent with DER and DFEE rate

Party Walls

Type

U-value

Filled Cavity with Edge Sealing

0.00 W/m²K

Pass

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals

8.18 (average for dwelling type)

Maximum

10.0

Pass

10 Key features

Party wall U-value

0.00 W/m²K

Roof U-value

0.11 W/m²K

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.