BUILDING REGULATION COMPLIANCE
Calculation Type: New Build (As Built)

energytest SAPeasy

Property Reference	27 Clevedon Road	**Issued on Date**	02/10/2023
Assessment Reference	AB	**Prop Type Ref**	
Property	27 Clevedon Road, Failand, BRISTOL, BS8 3UG		

SAP Rating	92 A	**DER**	6.72	**TER**	20.48
Environmental	93 A	**% DER<TER**	67.19		
CO_2 Emissions (t/year)	1.44	**DFEE**	54.58	**TFEE**	58.59
General Requirements Compliance	Pass	**% DFEE<TFEE**	6.84		

Assessor Details	Mr. Thomas McMahon, Energytest Ltd, Tel: 0114 230 2812, info@energy-test.co.uk	**Assessor ID**	r863-0001
Client			

SUMARY FOR INPUT DATA FOR New Build (As Built)

Criterion 1 – Achieving the TER and TFEE rate

1a TER and DER

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	20.48	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	6.72	$kgCO_2/m^2$	Pass
	-13.76 (-67.2%)	$kgCO_2/m^2$	

1b TFEE and DFEE

Target Fabric Energy Efficiency (TFEE)	58.59	$kWh/m^2/yr$	
Dwelling Fabric Energy Efficiency (DFEE)	54.58	$kWh/m^2/yr$	
	-4.0 (-6.8%)	$kWh/m^2/yr$	Pass

Criterion 2 – Limits on design flexibility

Limiting Fabric Standards

2 Fabric U-values

Element	Average	Highest	
External wall	0.20 (max. 0.30)	0.33 (max. 0.70)	Pass
Floor	0.11 (max. 0.25)	0.11 (max. 0.70)	Pass
Roof	0.15 (max. 0.20)	0.17 (max. 0.35)	Pass
Openings	1.22 (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	5.19 (measured in this dwelling)	$m^3/(h.m^2)$ @ 50 Pa	
Maximum	10.0	$m^3/(h.m^2)$ @ 50 Pa	Pass

Limiting System Efficiencies

4 Heating efficiency

Main heating system	Heat pump with radiators or underfloor - Electric Stiebel Eltron WPL 25 AS	

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Secondary heating system	None		

5 Cylinder insulation

Hot water storage	Measured cylinder loss: 1.30 kWh/day Permitted by DBSCG 2.24		Pass
Primary pipework insulated	Yes		Pass

6 Controls

Space heating controls	Time and temperature zone control		Pass
Hot water controls	Cylinderstat		Pass
	Independent timer for DHW		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 (Severn Valley)	Not significant	Pass

Based on:

Overshading	Average
Windows facing North East	15.79 m², No overhang
Windows facing South East	1.31 m², No overhang
Windows facing South West	41.06 m², No overhang
Windows facing North West	2.75 m², No overhang
Air change rate	2.50 ach
Blinds/curtains	Dark-coloured curtain or roller blind, closed 100% of daylight hours

Criterion 4 – Building performance consistent with DER and DFEE rate

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	5.19 (measured in this dwelling)	m³/(h.m²) @ 50 Pa	
Maximum	10.0	m³/(h.m²) @ 50 Pa	Pass

10 Key features

Roof U-value	0.11	W/m²K
Floor U-value	0.11	W/m²K
Photovoltaic array	3.60	kW

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