

Building Regulations England Part L (BREL) Compliance Report

Approved Document L1 2021 Edition, England assessed by Array SAP 10 program, Array

Date: Thu 29 Jan 2026 10:45:52

Project Information			
Assessed By	Neil Rothon	Building Type	Bungalow, Detached
OCDEA Registration	EES/022150	Assessment Date	2026-01-29

Dwelling Details			
Assessment Type	As built	Total Floor Area	194 m ²
Site Reference	Cedar End	Plot Reference	As Built
Address	The Hollies, Eastergate Lane, CHICHESTER, PO20 3SJ		

Client Details	
Name	Joe Shopland
Company	NJS Partnership
Address	Quarry Lane, Chichester, PO19 8NY

This report covers items included within the SAP calculations. It is not a complete report of regulations compliance.

1a Target emission rate and dwelling emission rate			
Fuel for main heating system	Electricity		
Target carbon dioxide emission rate	8.82 kgCO ₂ /m ²		
Dwelling carbon dioxide emission rate	4.17 kgCO ₂ /m ²		OK
1b Target primary energy rate and dwelling primary energy			
Target primary energy	49.65 kWh _{PE} /m ²		
Dwelling primary energy	43.62 kWh _{PE} /m ²		OK
1c Target fabric energy efficiency and dwelling fabric energy efficiency			
Target fabric energy efficiency	55.6 kWh/m ²		
Dwelling fabric energy efficiency	55.2 kWh/m ²		OK

2a Fabric U-values				
Element	Maximum permitted average U-Value [W/m ² K]	Dwelling average U-Value [W/m ² K]	Element with highest individual U-Value	
External walls	0.26	0.21	Walls (2) (0.9)	OK
Party walls	0.2	N/A	N/A	N/A
Curtain walls	1.6	N/A	N/A	N/A
Floors	0.18	0.11	Heatloss Floor 1 (0.11)	OK
Roofs	0.16	0.11	Roof (2) (0.13)	OK
Windows, doors, and roof windows	1.6	0.91	ID01 (1.4)	OK
Rooflights	2.2	1.3	RL02A, North (1.3)	OK

2b Envelope elements (better than typically expected values are flagged with a subsequent (!))			
Name	Net area [m ²]	U-Value [W/m ² K]	
Exposed wall: Walls (1)	125.2975	0.12 (!)	
Exposed wall: Walls (2)	16.76076	0.9	
Ground floor: Heatloss Floor 1, Heatloss Floor 1	193.67	0.11	
Exposed roof: Roof (1)	115.35	0.1 (!)	
Exposed roof: Roof (2)	85.012	0.13	
Exposed roof: Roof (3)	19.72	0.12	

2c Openings (better than typically expected values are flagged with a subsequent (!))				
Name	Area [m ²]	Orientation	Frame factor	U-Value [W/m ² K]
door ED1, Front Door	1.953	South	N/A	1 (!)
RL02A, Velux	0.4235	North	0.7	1.3
RL02A, Velux	0.4235	North	0.7	1.3
RL02B, Velux	0.4235	South	0.7	1.3
RL02B, Velux	0.4235	South	0.7	1.3
RL01A, Velux	0.4235	East	0.7	1.3
RL01A, Velux	0.4235	East	0.7	1.3
RL01B, Velux	0.4235	West	0.7	1.3
RL01B, Velux	0.4235	West	0.7	1.3
ID01, Door to garage	1.65924	East	N/A	1.4
EW01, Windows	0.7182	South	0.7	0.9 (!)

Name	Area [m ²]	Orientation	Frame factor	U-Value [W/m ² K]
EW02, Windows	2.19	South	0.7	0.9 (!)
Ed04, Windows	4.0725	South	0.7	0.9 (!)
Ew10, Windows	0.645	South	0.7	0.9 (!)
Ew03, Windows	2.19	East	0.7	0.9 (!)
Ew04, Windows	2.19	East	0.7	0.9 (!)
Ew07/08, Windows	25.3125	East	0.7	0.9 (!)
Ew09, Windows	0.7182	East	0.7	0.9 (!)
Ew11, Windows	4.8	East	0.7	0.9 (!)
Ew12, Windows	0.645	North	0.7	0.9 (!)
Ew13, Windows	4.65	East	0.7	0.9 (!)
Ew05, Windows	2.19	North	0.7	0.9 (!)
Ew06, Windows	2.04	North	0.7	0.9 (!)
ed05, Windows	4.0725	North	0.7	0.9 (!)
ew14, Windows	3.3	North	0.7	0.9 (!)
ed06, Windows	4.0725	North	0.7	0.9 (!)
ew15, Windows	3.3	North	0.7	0.9 (!)
ew16, Windows	4.65	North	0.7	0.9 (!)
ew17, Windows	2.97	North	0.7	0.9 (!)
ew18, Windows	2.97	West	0.7	0.9 (!)
ed07, Windows	2.002	West	0.7	0.9 (!)
ew19, Windows	0.7182	West	0.7	0.9 (!)
ew20, Windows	1.232	West	0.7	0.9 (!)
ed08, Windows	3.718	West	0.7	0.9 (!)
ew21, Windows	1.232	West	0.7	0.9 (!)
ew22, Windows	2.25	West	0.7	0.9 (!)
ew23, Windows	0.612	West	0.7	0.9 (!)
ew24, Windows	2.25	West	0.7	0.9 (!)
liv room gable Ew25-EW32, Windows	8.6289	West	0.7	0.9 (!)

2d Thermal bridging (better than typically expected values are flagged with a subsequent (!))

Building part 1: Thermal bridging calculated from linear thermal transmittances for each junction

Main element	Junction detail	Source	Psi value [W/mK]	Drawing / reference
External wall	E5: Ground floor (normal)	Government-approved scheme	0.073	roi
External wall	E5: Ground floor (normal)	SAP table default	0.32	to garage
External wall	E16: Corner (normal)	Government-approved scheme	0.036 (!)	roi
External wall	E17: Corner (inverted - internal area greater than external area)	Government-approved scheme	-0.064	roi
External wall	E10: Eaves (insulation at ceiling level)	Calculated by person with suitable expertise	0.067	roi
External wall	E12: Gable (insulation at ceiling level)	Calculated by person with suitable expertise	0.053	roi
External wall	E11: Eaves (insulation at rafter level)	Calculated by person with suitable expertise	0.024 (!)	roi
External wall	E13: Gable (insulation at rafter level)	Calculated by person with suitable expertise	0.049	roi
Roof	R11: Upstands or kerbs of rooflights	SAP table default	0.24	df

3 Air permeability (better than typically expected values are flagged with a subsequent (!))

Maximum permitted air permeability at 50Pa	8 m ³ /hm ²	
Dwelling air permeability at 50Pa	2.82 m ³ /hm ² , Measured value (!)	OK
Air permeability test certificate reference		

4 Space heating

Main heating system 1: Heat pump with radiators or underfloor heating - Electricity

Efficiency	291.9%
Emitter type	Underfloor
Flow temperature	55°C
System type	Heat Pump
Manufacturer	Atlantic
Model	Logic Air 10kW
Commissioning	

Secondary heating system: N/A		
Fuel	N/A	
Efficiency	N/A	
Commissioning		
5 Hot water		
Cylinder/store - type: Cylinder		
Capacity	300 litres	
Declared heat loss	1.63 kWh/day	
Primary pipework insulated	Yes	
Manufacturer		
Model		
Commissioning		
Waste water heat recovery system 1 - type: N/A		
Efficiency		
Manufacturer		
Model		
6 Controls		
Main heating 1 - type: Programmer and at least two room thermostats		
Function		
Ecodesign class		
Manufacturer		
Model		
Water heating - type: Cylinder thermostat and HW separately timed		
Manufacturer		
Model		
7 Lighting		
Minimum permitted light source efficacy	75 lm/W	
Lowest light source efficacy	107 lm/W	OK
External lights control	N/A	
8 Mechanical ventilation		
System type: Balanced whole-house mechanical ventilation with heat recovery		
Maximum permitted specific fan power	1.5 W/(l/s)	
Specific fan power	1.5 W/(l/s)	OK
Minimum permitted heat recovery efficiency	73%	
Heat recovery efficiency	84%	OK
Manufacturer/Model	Sentinel Kinetic B	
Commissioning		
9 Local generation		
N/A		
10 Heat networks		
N/A		
11 Supporting documentary evidence		
Documentary evidence identified in 11.1 and 11.2 is needed to confirm the data values used for any calculations undertaken, manufacturer declarations made, and tests performed as reflected in this "As built" BREL Compliance Report are correct. 11.1 SAP Conventions, Appendix 1 (documentary evidence) schedules the minimum documentary evidence required. 11.2 Indicative photographic evidence of key stages during construction (guidance within Approved Document L, Volume 1 – Appendix B) that confirms the products identified in this BREL Compliance Report are used in this dwelling, and workmanship is of sufficient quality to support the calculated values claimed in 2a to 2d.		

12 Declarations**a. Assessor Declaration**

This declaration by the assessor is confirmation that the contents of this BREL Compliance Report are a true and accurate reflection based upon the design and construction information submitted for this dwelling for the purpose of carrying out the assessment, and that the supporting documentary evidence (identified in 11.1 and 11.2) pursuant to Part L of the Building Regulations 2010 (as amended) has been reviewed in the course of preparing this BREL Compliance Report.

Signed:

Assessor ID:

Name:

Date:

b. Client Declaration

This declaration by the client is confirmation that the dwelling has been constructed and completed according to the specifications set out in this BREL Compliance Report, and that photographic evidence of key stages, as described in 11.2, has been provided to the Assessor for this dwelling.

Signed:



Organisation: L759-0001

Name: Neil Rothern

Date: 29.01.2026