

Timber Cottage
Lumley Road
Southbourne
West Sussex
PO10 8AF



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31st October 2023

To whom it may concern,

Re – Preliminary DESIGN SAP summary for the above proposed new dwelling

Building Regulations England Part L (BREL) Compliance Report

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

Date: Tue 31 Oct 2023 14:42:26

Project Information			
Assessed By	Kevin Hopton	Building Type	House, Detached
OCDEA Registration	EES/005002	Assessment Date	2023-10-31

Dwelling Details			
Assessment Type	As designed	Total Floor Area	235 m ²
Site Reference	23-016	Plot Reference	00001
Address	Timber Cottage Lumley Road, Southbourne, PO10 8AF		

Client Details	
Name	Mr & Mrs Doye
Company	n/a
Address	Timber Cottage, Lumley Road, Southbourne, PO10 8AF

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	7.8 kgCO ₂ /m ²	
Dwelling carbon dioxide emission rate	2.8 kgCO ₂ /m ²	OK
1b Target primary energy rate and dwelling primary energy		
Target primary energy	41.1 kWh _{PE} /m ²	
Dwelling primary energy	31.1 kWh _{PE} /m ²	OK
1c Target fabric energy efficiency and dwelling fabric energy efficiency		
Target fabric energy efficiency	39.8 kWh/m ²	
Dwelling fabric energy efficiency	39.4 kWh/m ²	OK

- The above extract from a SAP10 calculation (Approved Document L – conservation of fuel & power 2021 volume 1: dwellings) indicates a pass under all 3 metrics assessed – CO₂ emission rate; primary energy rate & fabric energy efficiency.

As a SAP10 pass (coming into force in June 2022) demonstrates at least a 30% uplift over 2013 building regulations, it is therefore indicated that the proposed dwelling exceeds the 20% improvement required above 2013 standards.

Looking at the actual results achieved for the metrics under consideration in this application (CO2 emissions & fabric energy efficiency) , it is demonstrated that the CO2 emissions are reduced by 64.1% above 2022 standards. Fabric energy efficiency exceeds the 2022 standard by 1.16%. Again bear in mind that a pass to 2022 building regulations represents a 30% improvement beyond 2013 building regulations.

Summary for Input Data



Property Reference	23-016			Issued on Date	31/10/2023
Assessment Reference	00001	Prop Type Ref			
Property	Timber Cottage, Lumley Road, Southbourne, West Sussex, PO10 8AF				
SAP Rating	84 B	DER	2.80	TER	7.80
Environmental	97 A	% DER < TER			64.10
CO ₂ Emissions (t/year)	0.53	DFEE	39.36	TFEE	39.82
Compliance Check	See BREL	% DFEE < TFEE			1.16
% DPER < TPER	24.32	DPER	31.10	TPER	41.10
Assessor Details	Mr. Kevin Hopton			Assessor ID	P190-0001
Client	23-016, Mr & Mrs Doye				

Measures used to achieve this include the deployment of a solar PV array (final spec to be confirmed – 2.0 kWp array assumed for purposes of this initial assessment)to the south-east & a SAP default air source heat pump- actual appliance specifics to be confirmed in due course.

Kevin Hopton

On-Construction Domestic Energy Assessor – P190-0001