

PREDICTED ENERGY ASSESSMENT

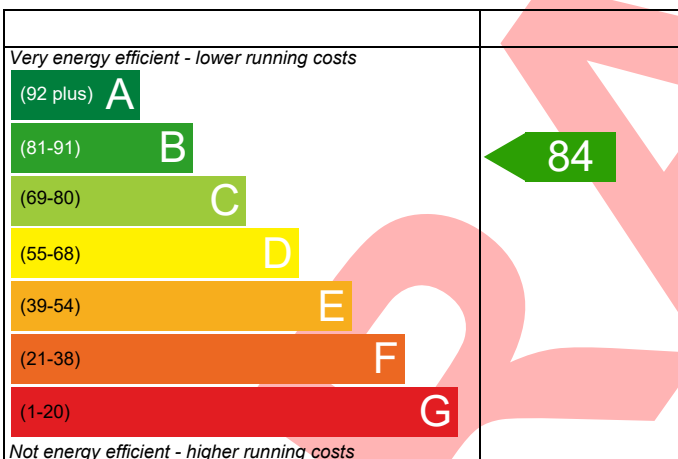
Abbey Corner, Flat 16, 2-4 Kings Road,
Reading,
United Kingdom,
2-4 Kings

Dwelling type: Flat, Detached
Date of assessment: 18/07/2023
Produced by: Paul Pasifull
Total floor area: 43.53 m²

This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.

Energy Efficiency Rating

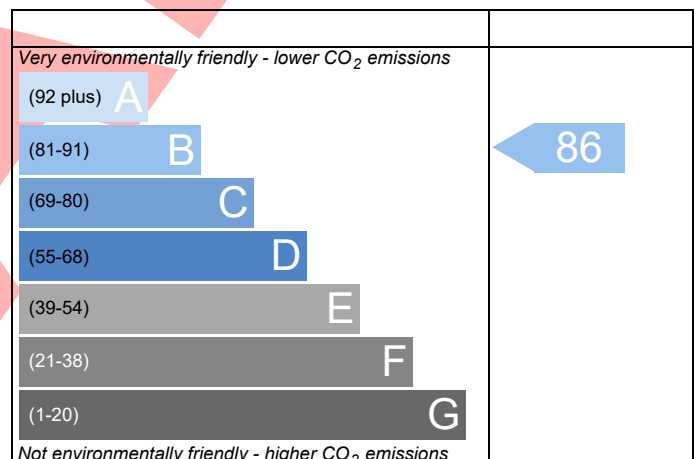


England

EU Directive
2002/91/EC

The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

Environmental Impact (CO₂) Rating



England

EU Directive
2002/91/EC

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating the less impact it has on the environment.

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BUILDING REGULATION COMPLIANCE

Calculation Type: New Build (As Designed)

Property Reference	Flat 16	Issued on Date	18/07/2023
Assessment Reference	001	Prop Type Ref	
Property	Abbey Corner, Flat 16, 2-4 Kings Road, Reading, United Kingdom, 2-4 Kings		
SAP Rating	84 B	DER	24.37
Environmental	86 B	% DER<TER	21.43
CO ₂ Emissions (t/year)	0.79	DFEE	41.42
General Requirements Compliance	Pass	% DFEE<TFEE	17.48
Assessor Details	Mr. Paul Pasifull, Paul Pasifull, Tel: 07737 798 021, Paul@lpenergy.co.uk		Assessor ID
Client	q133-0001		

SUMMARY FOR INPUT DATA FOR New Build (As Designed)

Criterion 1 – Achieving the TER and TFE rate

1a TER and DER

Fuel for main heating	Electricity		
Fuel factor	1.55 (electricity)		
Target Carbon Dioxide Emission Rate (TER)	31.02	kgCO ₂ /m ²	
Dwelling Carbon Dioxide Emission Rate (DER)	24.37	kgCO ₂ /m ²	Pass
	-6.65 (-21.4%)	kgCO ₂ /m ²	

1b TFE and DFEE

Target Fabric Energy Efficiency (TFEE)	50.20	kWh/m ² /yr	
Dwelling Fabric Energy Efficiency (DFEE)	41.42	kWh/m ² /yr	
	-8.8 (-17.5%)	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)	0.22 (max. 0.70)	Pass
Roof	0.16 (max. 0.20)	0.16 (max. 0.35)	Pass
Openings	1.20 (max. 2.00)	1.20 (max. 3.30)	Pass

2a Thermal bridging

Thermal bridging calculated using user-specified γ -value of 0.100

3 Air permeability

Air permeability at 50 pascals	4.00 (design value)	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	Boiler system with radiators or underfloor - Electric Direct-acting boiler	
Secondary heating system	None	

5 Cylinder insulation

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Hot water storage	Measured cylinder loss: 1.24 kWh/day Permitted by DBSCG 1.89	Pass
Primary pipework insulated	No primary pipework	

6 Controls

Space heating controls	Time and temperature zone control	Pass
Hot water controls	Cylinderstat	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 (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing South West	1.86 m ² , No overhang	
Windows facing West	4.05 m ² , No overhang	
Air change rate	4.00 ach	
Blinds/curtains	None	

Criterion 4 – Building performance consistent with DER and DFEE rate

Air permeability and pressure testing

3 Air permeability

Air permeability at 50 pascals	4.00 (design value)	m ³ /(h.m ²) @ 50 Pa	
Maximum	10.0	m ³ /(h.m ²) @ 50 Pa	Pass

10 Key features

Photovoltaic array	1.40	kW
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RECOMMENDATIONS

	Typical cost	Typical savings per year	Energy efficiency	Environmental impact	Result
Low energy lights			0	0	Already installed
Solar water heating			0	0	Not applicable
Photovoltaic			0	0	Not applicable
Wind turbine			0	0	Not applicable
Totals	£0	£0	B 84	B 86	

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