

PREDICTED ENERGY ASSESSMENT

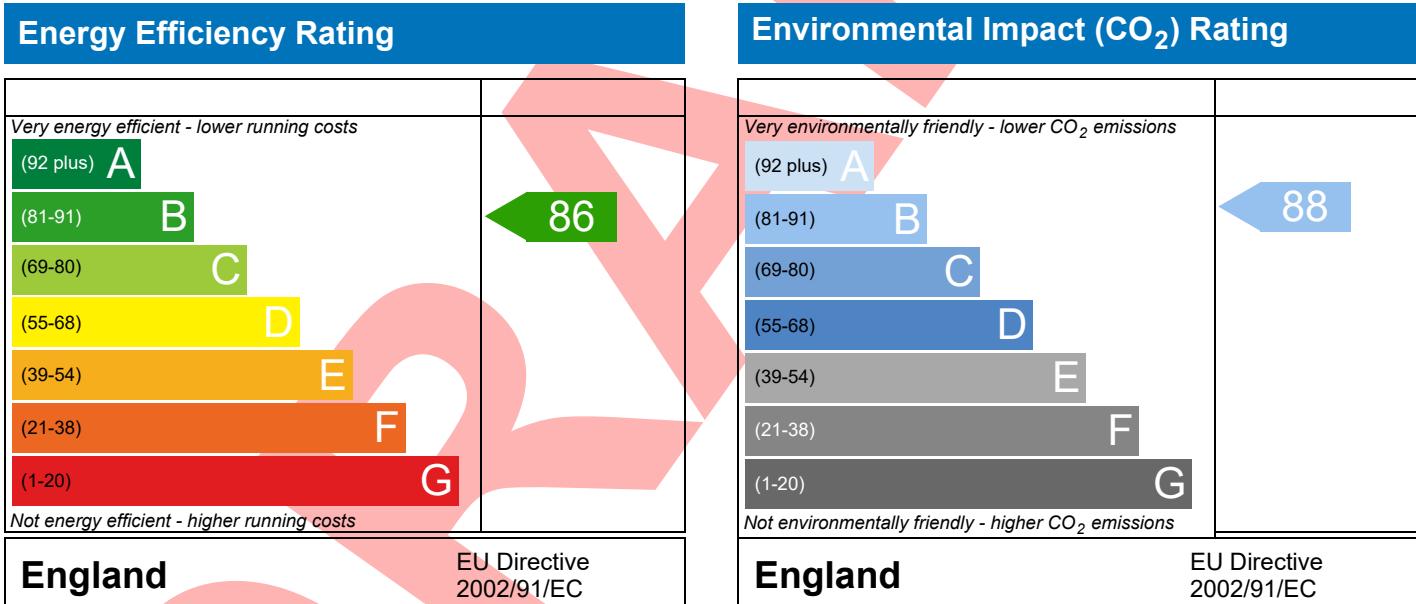


074, 2 Bed,
K, WC, B

Dwelling type: House, Semi-Detached
Date of assessment: 31/10/2022
Produced by: Eloise Utley
Total floor area: 79.22 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.



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.

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.

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

BUILDING REGULATION COMPLIANCE

Calculation Type: New Build (As Designed)



Property Reference	4907-0015-4675-074	Issued on Date	31/10/2022
Assessment Reference	074	Prop Type Ref	852AH - Semi - Op
Property	074, 2 Bed, K, WC, B		
SAP Rating	86 B	DER	16.09
Environmental	88 B	% DER<TER	41.34
CO ₂ Emissions (t/year)	1.05	DFEE	47.42
General Requirements Compliance	Pass	% DFEE<TFEE	12.41
Assessor Details	Ms. Eloise Utley, Eloise Utley , Tel: 01884 242 050, eloise.utley@aessc.co.uk	Assessor ID	T714-0001
Client			
SUMMARY FOR INPUT DATA FOR New Build (As Designed)			
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)	27.43	kgCO ₂ /m ²	
Dwelling Carbon Dioxide Emission Rate (DER)	16.09	kgCO ₂ /m ²	Pass
	-11.34 (-41.3%)	kgCO ₂ /m ²	
1b TFEE and DFEE			
Target Fabric Energy Efficiency (TFEE)	54.14	kWh/m ² /yr	
Dwelling Fabric Energy Efficiency (DFEE)	47.42	kWh/m ² /yr	
	-6.7 (-12.4%)	kWh/m ² /yr	Pass
Criterion 2 – Limits on design flexibility			
Limiting Fabric Standards			
2 Fabric U-values			
Element	Average	Highest	
External wall	0.24 (max. 0.30)	0.24 (max. 0.70)	Pass
Party wall	0.00 (max. 0.20)	-	Pass
Floor	0.13 (max. 0.25)	0.13 (max. 0.70)	Pass
Roof	0.11 (max. 0.20)	0.11 (max. 0.35)	Pass
Openings	1.38 (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	5.01 (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	Heat pump with radiators or underfloor - Electric Mitsubishi Electric Ecodan 5.0 kW PUZ-WM50VHA		

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Secondary heating system

None

5 Cylinder insulation

Hot water storage

Measured cylinder loss: 1.15 kWh/day
Permitted by DBSCG 1.89

Pass

Primary pipework insulated

Yes

Pass

6 Controls

Space heating controls

Programmer and room thermostat

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 (Thames Valley)

Based on:

Overshading

Slight

Pass

Windows facing North

Average

Windows facing South

7.78 m², No overhang

Air change rate

3.18 m², No overhang

Blinds/curtains

4.00 ach

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

5.01 (design value)

m³/(h.m²) @ 50 Pa

Maximum

10.0

m³/(h.m²) @ 50 Pa

Pass

10 Key features

Party wall U-value

0.00

W/m²K

Roof U-value

0.11

W/m²K

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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	£4,000 - £6,000	£58	B 88	B 89	Recommended
Photovoltaic	£3,500 - £5,500	£373	A 99	A 99	Recommended
Wind turbine			0	0	Not applicable
Totals	£7,500 - £11,500	£431	A 99	A 99	

DRF

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