

Predicted Energy Assessment



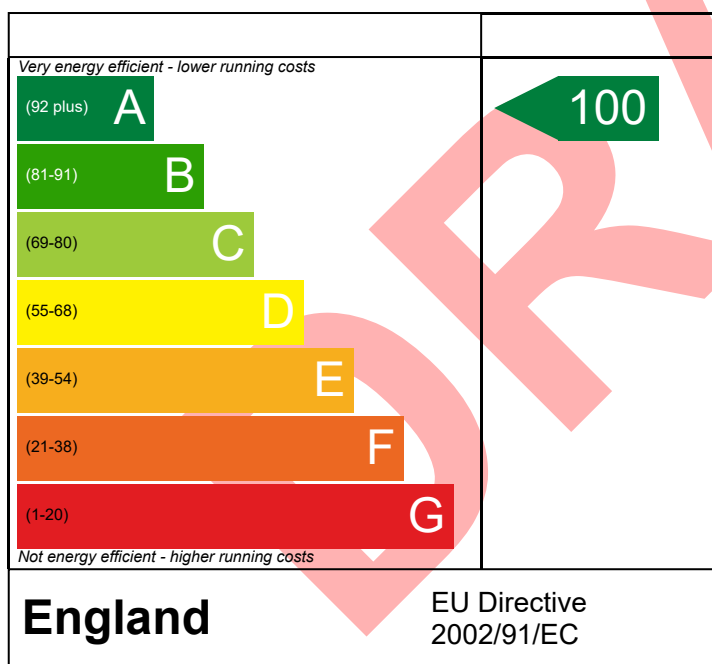
Stid Fold Barn, Wardle, Rochdale, Greater Manchester,
OL12 9PN

Dwelling type: House, Detached
Date of assessment: 17/02/2026
SAP Version: 10.2
Produced by: Oliver Summerfield
Total floor area: 162.75 m²
DRRN:

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.

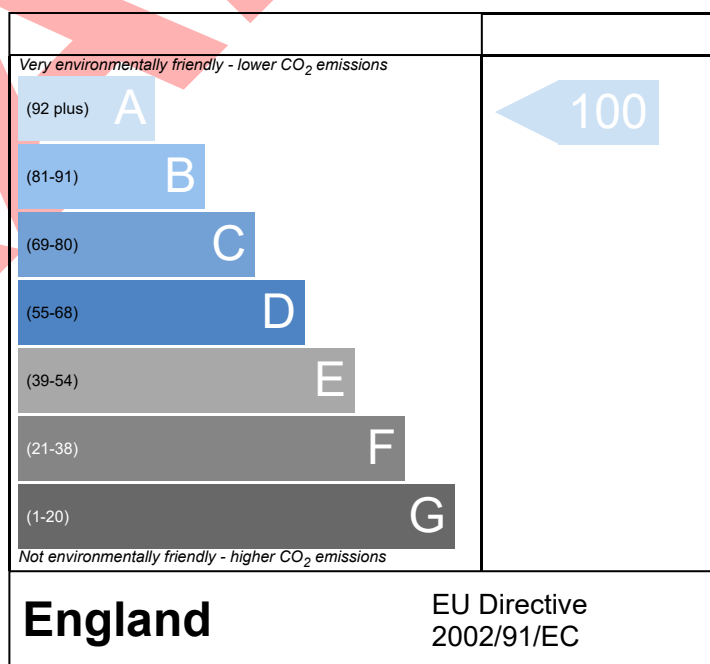
The energy performance has been assessed using the Government approved SAP 10 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.

Energy Efficiency Rating



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



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.

Summary for Input Data



Plot Reference	S39317	Issued on Date	17/02/2026
Assessment Reference	Design V2	Plot Type Ref	
Plot Address	Stid Fold Barn, Wardle, Rochdale, Greater Manchester, OL12 9PN	SAP Version	10.2

SAP Rating	100 A	DER	0.20	TER	10.69
Environmental	100 A	% DER < TER			98.13
CO ₂ Emissions (t/year)	0.16	DFEE	49.21	TFEE	49.68
Compliance Check	See BREL	% DFEE < TFEE			0.94
% DPER < TPER	94.15	DPER	3.31	TPER	56.62

Assessor Details	Mr. Oliver Summerfield	Assessor ID	BD24-0001
Client	S39317, Mr A Smith		

SUMMARY FOR INPUT DATA FOR: New Build (As Designed)

Orientation	South	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Suburban	
1.0 Property Type	House, Detached	
2.0 Number of Storeys	2	
3.0 Date Built	2026	
4.0 Sheltered Sides	0	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Precise calculation	
Thermal Mass	237.81	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements	Ground floor: 1st Storey:	Heat Loss Perimeter 43.41 m 32.88 m	Internal Floor Area 97.78 m² 64.97 m²	Average Storey Height 2.83 m 3.39 m
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8.0 Living Area	64.43	m²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
	Upgraded Brick Wall	Solid Wall	Other	0.14	150.00	163.12	146.30	0.00	None	16.82	Enter Gross Area
	Cladded Timber Wall	Timber Frame	Timber framed wall (one layer of plasterboard)	0.12	9.00	49.66	38.12	0.00	None	11.54	Enter Gross Area

9.2 Internal Walls	Description	Construction	Kappa (kJ/m²K)	Area (m²)
	Block Wall	Dense block, plasterboard on dabs	75.00	12.46
	Stud Wall	Plasterboard on timber frame	9.00	225.98

10.0 External Roofs	Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
	Sloped Roof	External Slope Roof	Plasterboard, insulated slope	0.10	9.00	104.05	104.05	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey Lowest occupied	Construction	Kappa	Area (m²)
	GF Ceiling		Plasterboard ceiling, carpeted chipboard floor	9.00	64.97

11.0 Heat Loss Floors	Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
	GF Slab	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.16	None	0.00	110.00	97.78

11.2 Internal Floors	Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
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Summary for Input Data

FF Floor +1 Plasterboard ceiling, carpeted chipboard floor 18.00 64.97

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Glazing	Manufacturer	Window	Double Low-E Soft 0.1			0.63		0.80	0.68
Glazed Door	Manufacturer	Window	Triple Low-E Soft 0.1			0.57		0.70	1.10
Front Door	Manufacturer	Window	Triple Low-E Soft 0.1			0.57		0.70	1.02

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
FW	Glazing	Upgraded Brick Wall	South	5.04	
LSW	Glazing	Upgraded Brick Wall	West	2.25	
RW	Glazing	Upgraded Brick Wall	North	6.76	
RSW	Glazing	Upgraded Brick Wall	East	0.46	
RW2	Glazing	Cladded Timber Wall	North	0.64	
FGD	Front Door	Upgraded Brick Wall	South	2.31	
RSGD	Glazed Door	Cladded Timber Wall	East	10.90	

14.0 Conservatory

None

15.0 Draught Proofing

100 %

16.0 Draught Lobby

No

17.0 Thermal Bridging

User Input

17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)		15.97			No
E3 Sill		12.34			No
E4 Jamb		33.55			No
E5 Ground floor (normal)		43.41			No
E6 Intermediate floor within a dwelling		32.88			No
E11 Eaves (insulation at rafter level)		28.70			No
E13 Gable (insulation at rafter level)		21.36			No
E16 Corner (normal)		26.49			No
E17 Corner (inverted – internal area greater than external area)		5.47			No

Y-value 0.07 W/m²K

Description Standard

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys 0

Number of open flues 0

Number of chimneys/flues attached to closed fire 0

Number of flues attached to solid fuel boiler 0

Number of flues attached to other heater 0

Number of blocked chimneys 0

Number of intermittent extract fans 5

Number of passive vents 0

Number of flueless gas fires 0

21.0 Fixed Cooling System

No

22.0 Pressure Testing

Yes

Designed AP₅₀ 5.01 m³/(h.m²) @ 50 Pa

Test Method Blower Door

22.0 Lighting

No Fixed Lighting No

Name	Efficacy	Power	Capacity	Count
Lighting	80.00	5.00	400.00	30

24.0 Main Heating 1

Database

Percentage of Heat 100.00 %

Database Ref. No. 108543

Summary for Input Data

Fuel Type	Electricity					
In Winter	292.99					
In Summer	187.94					
Model Name	aroTHERM plus 10kW & AI 250l					
Manufacturer	Vaillant Group UK Ltd					
System Type	Heat Pump					
Controls SAP Code	2207					
Controls description	Time and temperature zone control by arrangement					
Is MHS Pumped	Pump in heated space					
Heating Pump Age	2013 or later					
Heat Emitter	Underfloor					
Underfloor Heating	Yes - Pipes in Wood					
Flow Temperature	Enter value					
Flow Temperature Value	45.00					

25.0 Main Heating 2	None					
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26.0 Heat Networks	None					
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27.0 Secondary Heating	None					
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28.0 Water Heating						
Water Heating	Main Heating 1					
SAP Code	901					
Flue Gas Heat Recovery System	No					
Waste Water Heat Recovery Instantaneous System 1	No					
Waste Water Heat Recovery Instantaneous System 2	No					
Waste Water Heat Recovery Storage System	No					
Solar Panel	No					
Water use <= 125 litres/person/day	Yes					
Cold Water Source	From mains					
Bath Count	1					
Immersion Only Heating Hot Water	No					

28.1 Showers						
Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To	
Bathroom	Combi boiler or unvented hot water system	8.00		No		
Bathroom	Combi boiler or unvented hot water system	8.00		No		

28.3 Waste Water Heat Recovery System						
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29.0 Hot Water Cylinder	Hot Water Cylinder					
Cylinder Stat	Yes					
Cylinder In Heated Space	Yes					
Independent Time Control	Yes					
Insulation Type	Measured Loss					
Cylinder Volume	236.00					
Loss	1.41					
Pipes insulation	Fully insulated primary pipework					

31.0 Thermal Store	None					
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32.0 Photovoltaic Unit	One Dwelling					
Export Capable Meter?	Yes					
Connected To Dwelling	Yes					

Summary for Input Data



Diverter	Yes										
Battery Capacity [kWh]	10.00										
PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer			
5.64	South	30°	None Or Little		No	1.00					

34.0 Small-scale Hydro

None											
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

	Typical Cost	Typical savings per year	Ratings after improvement	
			SAP rating	Environmental Impact
Solar water heating			A 101	A 100
Photovoltaic			0	0
Wind turbine			0	0

Thermal Bridging

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Assessor Details	Mr. Oliver Summerfield	Assessor ID	BD24-0001
Client	S39317, Mr A Smith		

	Junction details	Length (m)	Reference
External wall	E2 Other lintels (including other steel lintels)	15.97	E2 - Default
External wall	E3 Sill	12.34	E3 - Default
External wall	E4 Jamb	33.55	E4 - Default
External wall	E5 Ground floor (normal)	43.41	E5 - Default
External wall	E6 Intermediate floor within a dwelling	32.88	E6 - Default
External wall	E11 Eaves (insulation at rafter level)	28.70	E11 - Default
External wall	E13 Gable (insulation at rafter level)	21.36	E13 - Default
External wall	E16 Corner (normal)	26.49	E16 - Default
External wall	E17 Corner (inverted – internal area greater than external area)	5.47	E17 - Default

Y-Value: 0.07 W/m²K: