Summary for Input Data

elmhurst energy

Plot Reference	STA-08-26-01	**Issued on Date**	05/08/2026
Assessment Reference	Venmore, Dilwyn - Plot 1	**Plot Type Ref**	Venmore, Dilwyn - Plot 1
Plot Address	L/A Venmore Cottage, Plot 1, Dilwyn, Herefordshire, HR4 8JW	**SAP Version**	10.2

SAP Rating	79 C	**DER**	4.13	**TER**	8.59
Environmental	96 A	**% DER < TER**			51.92
CO_2 Emissions (t/year)	0.79	**DFEE**	39.67	**TFEE**	42.65
Compliance Check	See BREL	**% DFEE < TFEE**			6.97
% DPER < TPER	7.26	**DPER**	42.08	**TPER**	45.38

Assessor Details	Mr. Peter Loveday	**Assessor ID**	L623-0001
Client			

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

Orientation	Northwest	
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	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Precise calculation	
Thermal Mass	124.99	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	51.40 m	110.83 m²	2.42 m
1st Storey:	51.40 m	103.93 m²	3.03 m

8.0 Living Area 44.97 m²

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
External Walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.16	9.00	251.04	207.61	0.00	None	43.43	Enter Gross Area

9.2 Internal Walls

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Stud Internal Walls	Plasterboard on timber frame	9.00	279.57
Masonry Internal Walls	Dense block, plasterboard on dabs	75.00	83.30

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
Horizontal ceilings	External Plane Roof	Plasterboard, insulated at ceiling level	0.10	9.00	63.54	63.54	None	0.00	Enter Gross Area	0.00
Sloping ceilings	External Slope Roof	Plasterboard, insulated slope	0.13	9.00	54.11	52.58	None	0.00	Enter Gross Area	1.53
Sloping roofs	External Slope Roof	Plasterboard, insulated slope	0.11	9.00	18.69	18.69	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings

Description	Storey	Construction	Kappa	Area (m²)
Internal Ceilings	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	9.00	103.93

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Ground floor	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	110.83

Summary for Input Data

elmhurst energy

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floors	+1	Plasterboard ceiling, carpeted chipboard floor	18.00	103.93

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double Low-E Hard 0.2			0.72		0.70	1.20
Glazed Doors	Manufacturer	Half Glazed Door	Double Low-E Hard 0.2			0.72		0.70	1.00
Solid doors	Manufacturer	Solid Door				0.00			1.00
Velux	Manufacturer	Roof Window	Double Low-E Hard 0.2			0.72		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
NW Windows	Windows	External Walls	North West	9.68	
NW Doors	Solid doors	External Walls	North West	2.00	
NW Velux	Velux	Sloping ceilings	North West	0.76	40
SW Windows	Windows	External Walls	South West	9.92	
SE Windows	Windows	External Walls	South East	18.47	
SE Doors	Glazed Doors	External Walls	South East	2.06	
SE Velux	Velux	Sloping ceilings	South East	0.76	40
NE Windows	Windows	External Walls	North East	1.31	

14.0 Conservatory	None	
15.0 Draught Proofing	100	%
16.0 Draught Lobby	No	

17.0 Thermal Bridging	Calculate Bridges	

17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted	Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	27.28	0.08	0.08	ROI	Yes
E3 Sill	Independently assessed	25.35	0.03	0.03	ROI	Yes
E4 Jamb	Independently assessed	67.06	0.04	0.04	ROI	Yes
E5 Ground floor (normal)	Independently assessed	51.40	0.02	0.02	ROI	Yes
E6 Intermediate floor within a dwelling	Independently assessed	51.40	0.08	0.08	ROI	Yes
E16 Corner (normal)	Independently assessed	36.95	0.03	0.03	ROI	No
R1 Head of roof window	Table K1 - Default	1.56	0.24	0.24	DF	Yes
R2 Sill of roof window	Table K1 - Default	1.56	0.24	0.24	DF	Yes
R3 Jamb of roof window	Table K1 - Default	3.92	0.24	0.24	DF	Yes
E10 Eaves (insulation at ceiling level)	Independently assessed	15.00	0.04	0.04	ROI	No
E11 Eaves (insulation at rafter level)	Independently assessed	18.54	0.04	0.04	ROI	No
E12 Gable (insulation at ceiling level)	Independently assessed	13.06	0.05	0.05	ROI	No
E13 Gable (insulation at rafter level)	Independently assessed	11.15	0.02	0.02	ROI	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	16.55	-0.01	-0.01	ROI	No
R4 Ridge (vaulted ceiling)	Table K1 - Default	9.27	0.12	0.12	DF	No

Y-value	0.03	W/m²K

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	1	
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	7	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	5.00	m³/(h.m²) @ 50 Pa
Test Method	Blower Door	

22.0 Lighting

Summary for Input Data

elmhurst energy

No Fixed Lighting	No

Name	Efficacy	Power	Capacity	Count
Lighting	80.00	5.00	400.00	36

24.0 Main Heating 1	SAP table	
Description	ASHP	
Percentage of Heat	100.00	%
Fuel Type	Electricity	
SAP Code	224	
In Winter	170.00	
In Summer	170.00	
Model Name	TBA	
Manufacturer	TBA	
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	Radiators and Underfloor	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Unknown	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	SAP table	
SAP Code	633	
Heating System Description	Solid fuel Closed room heater	
Fuel Type	Wood Logs	
SHS efficiency	60.00	%
HETAS Approved System	Yes	
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	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
GF Shower	Unknown			Yes	Storage System
Bathroom Shower	Unknown			Yes	Storage System
ES 1 Shower	Unknown			Yes	Storage System
ES 2 Shower	Unknown			Yes	Storage System

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	

Summary for Input Data

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Foam	
Insulation Thickness Type	80 mm	
Cylinder Volume	300.00	L
Pipes insulation	Fully insulated primary pipework	

31.0 Thermal Store None

32.0 Photovoltaic Unit One Dwelling

Export Capable Meter?	No
Connected To Dwelling	Yes
Diverter	No
Battery Capacity [kWh]	0.00

PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer
3.00	South West	30°	Modest		No	0.80		TBA

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	£4,000 - £7,000	£93	C 80	A 96
Photovoltaic			0	0
Wind turbine			0	0