Summary for Input Data

elmhurst energy

Property Reference	5832 Plot 12	**Issued on Date**	19/04/2023
Assessment Reference	As Designed	**Prop Type Ref**	
Property			

SAP Rating	81 B	**DER**	3.67	**TER**	9.53
Environmental	96 A	**% DER < TER**			61.49
CO_2 Emissions (t/year)	0.62	**DFEE**	42.48	**TFEE**	42.80
Compliance Check	See BREL	**% DFEE < TFEE**			0.74
% DPER < TPER	23.54	**DPER**	38.25	**TPER**	50.03

Assessor Details	Mr. Mark Roberts	**Assessor ID**	P471-0001
Client			

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

Orientation	North	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Suburban	
1.0 Property Type	House, Detached	
Which Floor	0	
2.0 Number of Storeys	2	
3.0 Date Built	2023	
4.0 Sheltered Sides	0	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Precise calculation	
Thermal Mass	N/A	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	Yes	
Smart gas meter fitted	Yes	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Basement:	0.00 m	0.00 m²	0.00 m
Ground floor:	44.51 m	85.70 m²	2.35 m
1st Storey:	53.32 m	94.76 m²	2.64 m
2nd Storey:	0.00 m	0.00 m²	0.00 m
3rd Storey:	0.00 m	0.00 m²	0.00 m
4th Storey:	0.00 m	0.00 m²	0.00 m
5th Storey:	0.00 m	0.00 m²	0.00 m
6th Storey:	0.00 m	0.00 m²	0.00 m
7th Storey:	0.00 m	0.00 m²	0.00 m

8.0 Living Area	85.70	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
Brickwork	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	140.05	110.64	0.00	None	29.41	Enter Gross Area
Boarded	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	33.56	27.72	0.00	None	5.84	Enter Gross Area
Plinth	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	18.54	18.54	0.00	None	0.00	Enter Gross Area
Dormer	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	7.35	5.70	0.00	None	1.65	Enter Gross Area

9.2 Internal Walls

Description	Construction	Kappa (kJ/m²K)	Area (m²)
GF	Plasterboard on timber frame	9.00	101.07
FF	Plasterboard on timber frame	9.00	160.78

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	External Slope Roof	Plasterboard, insulated slope	0.15	9.00	30.42	0.00	None	0.00	Enter Gross Area	0.00
Ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.11	9.00	60.12	0.00	None	0.00	Enter Gross Area	0.00

Flat	External Flat Roof	Plasterboard, insulated flat roof	0.15	9.00	4.22	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings

Description	Storey	Construction	Area (m²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	85.70

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Beam & Block	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.12	None	0.00	75.00	85.70
Garage	Exposed Floor - Timber	+1	Timber exposed floor, insulation between joists	0.17	None	0.00	20.00	29.07

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
FF		Plasterboard ceiling, carpeted chipboard floor	9.00	85.70

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Window	Manufacturer	Window	Double Low-E Soft 0.05		Air Filled	0.63	Wood	0.70	1.20
Door	Manufacturer	Solid Door			Air Filled	0.00	Wood	0.70	1.20
Half Glazed Door	Manufacturer	Half Glazed Door	Double Low-E Soft 0.05		Air Filled	0.63	Wood	0.70	1.20

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
E Win Brick	Window	Brickwork	North	6.88	0
E Door Brick	Door	Brickwork	North	1.89	0
E Win Boarded	Window	Boarded	North	4.18	0
E Win Dormer	Window	Dormer	North	1.65	0
S Win Brick	Window	Brickwork	East	1.44	0
S HD Brick	Half Glazed Door	Brickwork	East	1.91	0
W Win Brick	Window	Brickwork	South	14.86	0
N Win Brick	Window	Brickwork	West	2.43	0
N Win Boarded	Window	Boarded	West	1.66	0

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	25.26	0.17	0.17	TRADA	Yes
E3 Sill	Independently assessed	23.45	0.03	0.03	TRADA	Yes
E4 Jamb	Independently assessed	56.83	0.04	0.04	TRADA	Yes
E5 Ground floor (normal)	Independently assessed	44.51	0.14	0.14	TRADA	Yes
E6 Intermediate floor within a dwelling	Independently assessed	53.32	0.12	0.12	TRADA	Yes
E20 Exposed floor (normal)	Independently assessed	21.57	0.12	0.12		No
E10 Eaves (insulation at ceiling level)	Independently assessed	23.16	0.07	0.07	TRADA	No
E11 Eaves (insulation at rafter level)	Independently assessed	18.24	0.05	0.05	TRADA	No
E12 Gable (insulation at ceiling level)	Independently assessed	12.90	0.07	0.07	TRADA	No
E13 Gable (insulation at rafter level)	Independently assessed	15.72	0.06	0.06	TRADA	No
E14 Flat roof	Table K1 - Default	8.40	0.16	0.16		No
E16 Corner (normal)	Independently assessed	38.69	0.06	0.06	TRADA	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	19.71	-0.01	-0.01	TRADA	No

Y-value	0.07	W/m²K

18.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	
As Built AP_{50}	0.10	m³/(h.m²) @ 50 Pa

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	Yes
Mechanical Ventilation data Type	Database
Type	Mechanical extract ventilation - decentralised
MV Reference Number	500769

Summary for Input Data

elmhurst energy

Duct Type	Flexible
MVHR Efficiency	0.00
Wet Rooms	6
SFP from Installer Commissioning Certificate	No

19.1 Mechanical extract ventilation - Decentralised

SFP	Fan/Room Type	Count
0.15	In Room Fan Kitchen	0
0.11	In Room Fan Other Wet Room	0
0.00	In Duct Fan Kitchen	0
0.00	In Duct Fan Other Wet Room	0
0.11	Through Wall Fan Kitchen	0
0.09	Through Wall Fan Other Wet Room	7

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System	No

22.0 Lighting

No Fixed Lighting	No

Name	Efficacy	Power	Capacity	Count
Lighting 1	92.86	7	650	50

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	105744	
Fuel Type	Electricity	
SAP Code	0	
In Winter	0.00	
In Summer	0.00	
Model Name	WH-MDC09J3E5	
Manufacturer	Panasonic HVAC UK Ltd	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	Modulating	
HETAS approved System	No	
Oil Pump Inside	No	
FI Case	0.00	
Flue Type	None or Unknown	
Fan Assisted Flue	No	
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	Enter value	
Flow Temperature Value	55.00	
Boiler Interlock	No	
Combi boiler type	No Combi	
Combi keep hot type	None	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	

Summary for Input Data

	Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1	None									
Heat source 2	None									
Heat source 3	None									
Heat source 4	None									
Heat source 5	None									

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	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	2	
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
Bath	Vented hot water system	7.00		No	
Ens 1	Vented hot water system	7.00		No	
Ens 2	Vented hot water system	7.00		No	

28.3 Waste Water Heat Recovery System

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	270.00	L
Loss	1.58	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None