Summary for Input Data

elmhurst energy

Property Reference	5832 Plot 03	**Issued on Date**	19/04/2023
Assessment Reference	As Designed	**Prop Type Ref**	
Property	IP9 1DW		

SAP Rating	83 B	**DER**	3.98	**TER**	8.74
Environmental	96 A	**% DER < TER**			54.46
CO_2 Emissions (t/year)	0.35	**DFEE**	42.82	**TFEE**	43.35
Compliance Check	See BREL	**% DFEE < TFEE**			1.22
% DPER < TPER	11.14	**DPER**	41.84	**TPER**	47.09

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

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

Orientation	South	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Suburban	
1.0 Property Type	Bungalow, Detached	
Which Floor	0	
2.0 Number of Storeys	1	
3.0 Date Built	2023	
4.0 Sheltered Sides	2	
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:	44.48 m	92.98 m²	2.35 m
1st Storey:	0.00 m	0.00 m²	0.00 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	18.99	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
Timber Frame Brickwork	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	60.70	35.84	0.00	None	24.86	Enter Gross Area
Timber Frame Boarded	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	11.14	9.05	0.00	None	2.09	Enter Gross Area
Timber Frame Plinth	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	16.39	16.39	0.00	None	0.00	Enter Gross Area
Garage Wall Sheltered	Timber Frame	Timber framed wall (one layer of plasterboard)	0.15	9.00	10.09	10.09	0.00	None	0.00	Enter Gross Area

9.2 Internal Walls

Description	Construction	Kappa (kJ/m²K)	Area (m²)
GF Timber Frame	Plasterboard on timber frame	9.00	158.23

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
Flat Ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.11	9.00	92.98	0.00	None	0.00	Enter Gross Area	0.00

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)

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Beam & Block	Ground Floor - Solid Lowest occupied	Suspended concrete floor, carpeted	0.12	None	0.00	75.00	92.98

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

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
S Window Boarded	Window	Timber Frame Boarded	South	2.09	0
S Window Brickwork	Window	Timber Frame Brickwork	South	2.92	0
S Door Brickwork	Door	Timber Frame Brickwork	South	1.91	0
W Window Brickwork	Window	Timber Frame Brickwork	East	2.75	0
N Window Brickwork	Window	Timber Frame Brickwork	North	12.46	0
E Window Brickwork	Window	Timber Frame Brickwork	West	4.83	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	15.59	0.17	0.17	TRADA Timber Frame Details	Yes
E3 Sill	Independently assessed	14.69	0.03	0.03	TRADA Timber Frame Details	Yes
E4 Jamb	Independently assessed	35.12	0.04	0.04	TRADA Timber Frame Details	Yes
E5 Ground floor (normal)	Independently assessed	44.48	0.14	0.14	TRADA Timber Frame Details	Yes
E10 Eaves (insulation at ceiling level)	Independently assessed	12.92	0.07	0.07	TRADA Timber Frame Details	No
E12 Gable (insulation at ceiling level)	Independently assessed	22.51	0.07	0.07	TRADA Timber Frame Details	No
E13 Gable (insulation at rafter level)	Independently assessed	5.42	0.06	0.06	TRADA Timber Frame Details	No
E16 Corner (normal)	Independently assessed	12.76	0.05	0.05	NHBC Timber Frame Guide	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	10.84	-0.01	-0.01	TRADA Timber Frame Details	No
E11 Eaves (insulation at rafter level)	Independently assessed	4.05	0.05	0.05	TRADA Timber Frame Details	No

Y-value	0.05	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
Duct Type	Rigid
MVHR Efficiency	0.00
Wet Rooms	3
SFP from Installer Commissioning Certificate	No
Installation Engineer	TBC
Commissioning Certificate	TBC

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	4

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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	90.00	7	630	25

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	104368	
Fuel Type	Electricity	
SAP Code	0	
In Winter	0.00	
In Summer	0.00	
Model Name	AE080RXYDEG	
Manufacturer	Samsung Electronics Air Conditioner Europe B.V.	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
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	Underfloor	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	45.00	
Boiler Interlock	No	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	

	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

Summary for Input Data

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
Ensuite	Instantaneous electric shower		9.30	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	150.00	L
Loss	1.50	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