

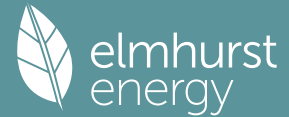
ROWE COURT,
Grovesland Road, Reading, RG30 2HZ

Design Stage SAP Assessment
(Standard Assessment Procedure)



Kent (HQ) | London | Swansea

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 1	Prop Type Ref		
Property				

SAP Rating	81 B	DER	7.30	TER	20.80
Environmental	96 A	% DER < TER			64.90
CO ₂ Emissions (t/year)	0.21	DFEE	45.09	TFEE	45.24
Compliance Check	See BREL	% DFEE < TFEE			0.35
% DPER < TPER	30.28	DPER	77.52	TPER	111.20

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Ground-floor flat
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
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 13.40 m	Internal Floor Area 31.70 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	20.10 20.10	13.50 18.21	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	34.80		None

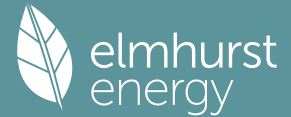
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	64.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.70

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.70

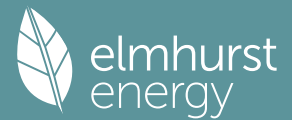
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00
13.0 Openings						
Name	Opening Type	Location	Orientation	Area (m²)	Pitch	
Door to corridor	Door	Wall to Untd	North	1.89		
N Glazing	Glazing	External Wall 1	North	6.60		
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	3.90	0.30	0.30	No	
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	12.60	0.04	0.04	Yes	
E5 Ground floor (normal)	Independently assessed	13.60	0.16	0.16	No	
E18 Party wall between dwellings	Independently assessed	11.60	0.06	0.06	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	11.60	0.00	0.00	No	
Y-value						
		0.06 W/m²K				
18.0 Pressure Testing						
		Yes				
Designed AP ₅₀	3.00					m³/(h.m²) @ 50 Pa
Test Method	Blower Door					
19.0 Mechanical Ventilation						
Mechanical Ventilation						
Mechanical Ventilation System Present	Yes					
Approved Installation	No					
Mechanical Ventilation data Type	Database					
Type	Balanced mechanical ventilation with heat recovery					
MV Reference Number	500167					
Configuration	1					
Manufacturer SFP	0.52					
Duct Type	Rigid					
MVHR Efficiency	92.00					
Wet Rooms	1					
SFP from Installer Commissioning Certificate	No					
MVHR System Location	Inside heated envelope (installed exclusively)					
Duct Installation Specification	Level 1					
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	100.00	5	500	10	
24.0 Main Heating 1						
		SAP table				
Percentage of Heat	100.00					%
Fuel Type	Electricity					
SAP Code	524					
In Winter	170.00					
In Summer	170.00					
Controls SAP Code	2506					
25.0 Main Heating 2						
		None				

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

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	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

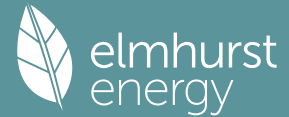
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 2	Prop Type Ref		
Property				

SAP Rating	80 C	DER	7.45	TER	21.16
Environmental	96 A	% DER < TER			64.79
CO ₂ Emissions (t/year)	0.22	DFEE	46.76	TFEE	46.97
Compliance Check	See BREL	% DFEE < TFEE			0.46
% DPER < TPER	30.09	DPER	79.10	TPER	113.15

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Ground-floor flat
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
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 15.20 m	Internal Floor Area 31.70 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	37.50 8.10	30.90 6.21	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	17.40		None

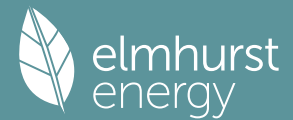
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	64.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.70

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.70

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00 1.20
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13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	North	1.89	
N Glazing	Glazing	External Wall 1	North	6.60	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	3.90	0.30	0.30	Yes
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes
E5 Ground floor (normal)	Independently assessed	15.20	0.16	0.16	Yes
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	5.80	0.06	0.06	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	5.80	0.00	0.00	No

Y-value

 W/m²K

18.0 Pressure Testing

Designed AP₅₀ m³/(h.m²) @ 50 Pa

Test Method

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Approved Installation

Mechanical Ventilation data Type

Type

MV Reference Number

Configuration

Manufacturer SFP

Duct Type

MVHR Efficiency

Wet Rooms

SFP from Installer Commissioning Certificate

MVHR System Location

Duct Installation Specification

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

22.0 Lighting

No Fixed Lighting

Name	Efficacy	Power	Capacity	Count
Lighting 1	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat %

Fuel Type

SAP Code

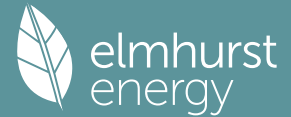
In Winter

In Summer

Controls SAP Code

25.0 Main Heating 2

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

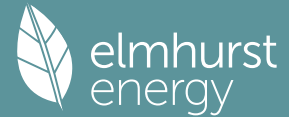
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 3	Prop Type Ref		
Property				

SAP Rating	81 B	DER	7.25	TER	20.71
Environmental	96 A	% DER < TER			64.99
CO ₂ Emissions (t/year)	0.2	DFEE	41.34	TFEE	41.89
Compliance Check	See BREL	% DFEE < TFEE			1.31
% DPER < TPER	30.44	DPER	77.07	TPER	110.80

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	East
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Ground-floor flat
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
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 15.60 m	Internal Floor Area 30.30 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	39.00 7.80	32.40 5.91	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	30.30		None

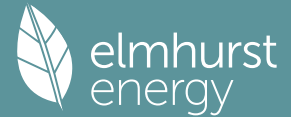
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	51.60

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	30.30

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	30.30

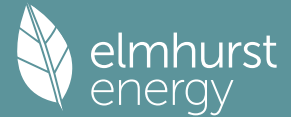
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00
13.0 Openings						
Name	Opening Type	Location	Orientation	Area (m²)	Pitch	
Door to corridor S Glazing	Door Glazing	Wall to Untd External Wall 1	East South	1.89 6.60		
14.0 Conservatory						
15.0 Draught Proofing						
16.0 Draught Lobby						
17.0 Thermal Bridging						
17.1 List of Bridges						
Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported	
E2 Other lintels (including other steel lintels)	Independently assessed	3.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes	
E5 Ground floor (normal)	Independently assessed	15.60	0.16	0.16	Yes	
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No	
E18 Party wall between dwellings	Independently assessed	10.10	0.06	0.06	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	10.10	0.00	0.00	No	
Y-value	0.07			W/m²K		
18.0 Pressure Testing						
Designed AP ₅₀	3.00			m³/(h.m²) @ 50 Pa		
Test Method	Blower Door					
19.0 Mechanical Ventilation						
Mechanical Ventilation						
Mechanical Ventilation System Present	Yes					
Approved Installation	No					
Mechanical Ventilation data Type	Database					
Type	Balanced mechanical ventilation with heat recovery					
MV Reference Number	500167					
Configuration	1					
Manufacturer SFP	0.52					
Duct Type	Rigid					
MVHR Efficiency	92.00					
Wet Rooms	1					
SFP from Installer Commissioning Certificate	No					
MVHR System Location	Inside heated envelope (installed exclusively)					
Duct Installation Specification	Level 1					
20.0 Fans, Open Fireplaces, Flues						
21.0 Fixed Cooling System						
22.0 Lighting						
No Fixed Lighting	No					
	Name	Efficacy	Power	Capacity	Count	
	Lighting 1	100.00	5	500	10	
24.0 Main Heating 1						
Percentage of Heat	100.00			%		
Fuel Type	Electricity					
SAP Code	524					
In Winter	170.00					
In Summer	170.00					
Controls SAP Code	2506					
25.0 Main Heating 2						
None						

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

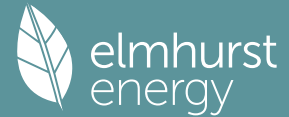
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 4	Prop Type Ref		
Property				

SAP Rating	81 B	DER	7.17	TER	20.45
Environmental	96 A	% DER < TER			64.94
CO ₂ Emissions (t/year)	0.21	DFEE	42.18	TFEE	43.04
Compliance Check	See BREL	% DFEE < TFEE			2.00
% DPER < TPER	30.31	DPER	76.17	TPER	109.30

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	South
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Ground-floor flat
Which Floor	0
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 19.20 m	Internal Floor Area 31.60 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	20.10 37.50	13.50 35.61	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	17.40		None

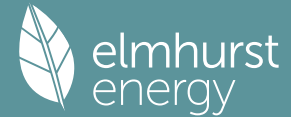
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	57.00

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.60

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.60

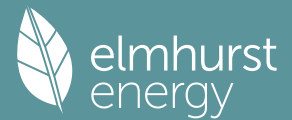
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00
13.0 Openings						
Name	Opening Type	Location	Orientation	Area (m²)	Pitch	
Door to corridor S Glazing	Door Glazing	Wall to Untd External Wall 1	South South	1.89 6.60		
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	3.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes	
E5 Ground floor (normal)	Independently assessed	19.20	0.16	0.16	Yes	
E18 Party wall between dwellings	Independently assessed	5.80	0.06	0.06	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	5.80	0.00	0.00	No	
Y-value	0.06					W/m²K
18.0 Pressure Testing		Yes				
Designed AP ₅₀	3.00					m³/(h.m²) @ 50 Pa
Test Method	Blower Door					
19.0 Mechanical Ventilation						
Mechanical Ventilation						
Mechanical Ventilation System Present	Yes					
Approved Installation	No					
Mechanical Ventilation data Type	Database					
Type	Balanced mechanical ventilation with heat recovery					
MV Reference Number	500167					
Configuration	1					
Manufacturer SFP	0.52					
Duct Type	Rigid					
MVHR Efficiency	92.00					
Wet Rooms	1					
SFP from Installer Commissioning Certificate	No					
MVHR System Location	Inside heated envelope (installed exclusively)					
Duct Installation Specification	Level 1					
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	100.00	5	500	10	
24.0 Main Heating 1		SAP table				
Percentage of Heat	100.00					%
Fuel Type	Electricity					
SAP Code	524					
In Winter	170.00					
In Summer	170.00					
Controls SAP Code	2506					
25.0 Main Heating 2		None				

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

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	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

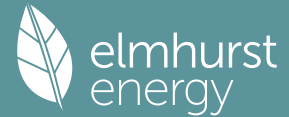
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 5	Prop Type Ref		
Property				

SAP Rating	81 B	DER	7.13	TER	20.34
Environmental	96 A	% DER < TER			64.95
CO ₂ Emissions (t/year)	0.21	DFEE	42.01	TFEE	42.87
Compliance Check	See BREL	% DFEE < TFEE			2.02
% DPER < TPER	30.26	DPER	75.81	TPER	108.71

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	South
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Ground-floor flat
Which Floor	0
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 19.20 m	Internal Floor Area 31.80 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40 m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	20.10 37.50	13.50 35.61	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	17.40		None

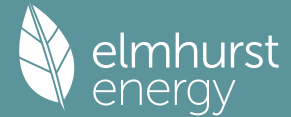
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	57.00

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.60

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.60

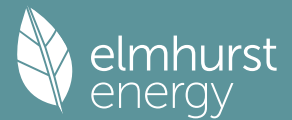
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00
13.0 Openings						
Name	Opening Type	Location	Orientation	Area (m²)	Pitch	
Door to corridor S Glazing	Door Glazing	Wall to Untd External Wall 1	South South	1.89 6.60		
14.0 Conservatory						
15.0 Draught Proofing						
16.0 Draught Lobby						
17.0 Thermal Bridging						
17.1 List of Bridges						
Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported	
E2 Other lintels (including other steel lintels)	Independently assessed	3.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes	
E5 Ground floor (normal)	Independently assessed	19.20	0.16	0.16	Yes	
E18 Party wall between dwellings	Independently assessed	5.80	0.06	0.06	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	5.80	0.00	0.00	No	
Y-value	0.06			W/m²K		
18.0 Pressure Testing						
Designed AP ₅₀	3.00			m³/(h.m²) @ 50 Pa		
Test Method	Blower Door					
19.0 Mechanical Ventilation						
Mechanical Ventilation						
Mechanical Ventilation System Present	Yes					
Approved Installation	No					
Mechanical Ventilation data Type	Database					
Type	Balanced mechanical ventilation with heat recovery					
MV Reference Number	500167					
Configuration	1					
Manufacturer SFP	0.52					
Duct Type	Rigid					
MVHR Efficiency	92.00					
Wet Rooms	1					
SFP from Installer Commissioning Certificate	No					
MVHR System Location	Inside heated envelope (installed exclusively)					
Duct Installation Specification	Level 1					
20.0 Fans, Open Fireplaces, Flues						
21.0 Fixed Cooling System						
22.0 Lighting						
No Fixed Lighting	No					
	Name	Efficacy	Power	Capacity	Count	
	Lighting 1	100.00	5	500	10	
24.0 Main Heating 1						
Percentage of Heat	100.00			%		
Fuel Type	Electricity					
SAP Code	524					
In Winter	170.00					
In Summer	170.00					
Controls SAP Code	2506					
25.0 Main Heating 2						
None						

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

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	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

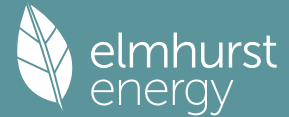
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 6	Prop Type Ref		
Property				

SAP Rating	80 C	DER	7.75	TER	22.02
Environmental	96 A	% DER < TER			64.80
CO ₂ Emissions (t/year)	0.21	DFEE	48.15	TFEE	48.28
Compliance Check	See BREL	% DFEE < TFEE			0.27
% DPER < TPER	30.21	DPER	82.24	TPER	117.84

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	West
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Ground-floor flat
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
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 15.50 m	Internal Floor Area 30.20 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	38.40 8.10	31.80 6.21	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	28.20		None

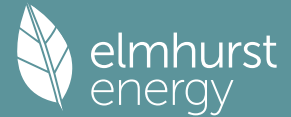
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	53.40

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	30.20

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	30.20

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00 1.20
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13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	West	1.89	
SW Glazing	Glazing	External Wall 1	North	6.60	

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	3.90	0.30	0.30	Yes
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	12.60	0.03	0.03	Yes
E5 Ground floor (normal)	Independently assessed	15.50	0.16	0.16	Yes
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	7.40	0.06	0.06	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	9.40	0.00	0.00	No

Y-value

0.06

W/m²K

18.0 Pressure Testing

Yes

Designed AP₅₀

3.00

m³/(h.m²) @ 50 Pa

Test Method

Blower Door

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Yes

Approved Installation

No

Mechanical Ventilation data Type

Database

Type

Balanced mechanical ventilation with heat recovery

MV Reference Number

500167

Configuration

1

Manufacturer SFP

0.52

Duct Type

Rigid

MVHR Efficiency

92.00

Wet Rooms

1

SFP from Installer Commissioning Certificate

No

MVHR System Location

Inside heated envelope (installed exclusively)

Duct Installation Specification

Level 1

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	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat

100.00

%

Fuel Type

Electricity

SAP Code

524

In Winter

170.00

In Summer

170.00

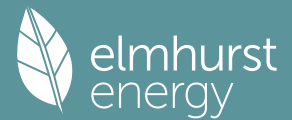
Controls SAP Code

2506

25.0 Main Heating 2

None

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

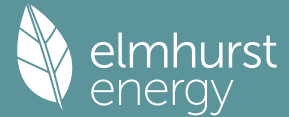
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 7	Prop Type Ref		
Property				

SAP Rating	81 B	DER	7.19	TER	20.42
Environmental	96 A	% DER < TER			64.79
CO ₂ Emissions (t/year)	0.21	DFEE	43.93	TFEE	43.95
Compliance Check	See BREL	% DFEE < TFEE			0.05
% DPER < TPER	30.03	DPER	76.36	TPER	109.13

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Ground-floor flat
Which Floor	0
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 15.10 m	Internal Floor Area 31.80 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	37.50 7.80	30.90 5.91	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	29.40		None

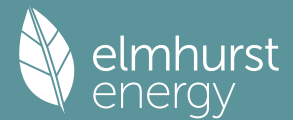
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	64.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.80

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.80

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00 1.20
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13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	North	1.89	
SW Glazing	Glazing	External Wall 1	East	6.60	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	3.90	0.30	0.30	Yes
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes
E5 Ground floor (normal)	Independently assessed	15.10	0.16	0.16	Yes
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	9.80	0.06	0.06	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	9.80	0.00	0.00	No

Y-value

 W/m²K

18.0 Pressure Testing

Designed AP₅₀ m³/(h.m²) @ 50 Pa

Test Method

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Approved Installation

Mechanical Ventilation data Type

Type

MV Reference Number

Configuration

Manufacturer SFP

Duct Type

MVHR Efficiency

Wet Rooms

SFP from Installer Commissioning Certificate

MVHR System Location

Duct Installation Specification

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

22.0 Lighting

No Fixed Lighting

Name	Efficacy	Power	Capacity	Count
Lighting 1	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat %

Fuel Type

SAP Code

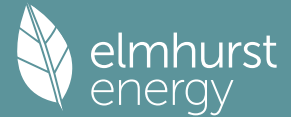
In Winter

In Summer

Controls SAP Code

25.0 Main Heating 2

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

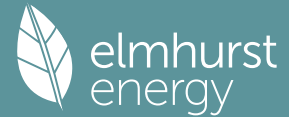
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 8	Prop Type Ref		
Property				

SAP Rating	81 B	DER	7.01	TER	20.05
Environmental	96 A	% DER < TER			65.04
CO ₂ Emissions (t/year)	0.21	DFEE	41.87	TFEE	42.02
Compliance Check	See BREL	% DFEE < TFEE			0.37
% DPER < TPER	30.40	DPER	74.58	TPER	107.16

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Ground-floor flat
Which Floor	0
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 13.40 m	Internal Floor Area 31.70 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	20.10 20.10	13.50 18.21	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	34.80		None

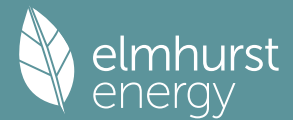
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	64.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.70

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.70

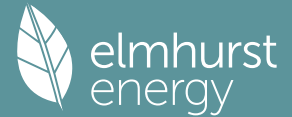
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00
13.0 Openings						
Name	Opening Type	Location	Orientation	Area (m²)	Pitch	
Door to corridor	Door	Wall to Untd	North	1.89		
SW Glazing	Glazing	External Wall 1	East	6.60		
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	3.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes	
E5 Ground floor (normal)	Independently assessed	13.40	0.14	0.14	Yes	
E18 Party wall between dwellings	Independently assessed	11.60	0.06	0.06	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	11.60	0.00	0.00	No	
Y-value						
		0.06 W/m²K				
18.0 Pressure Testing						
		Yes				
Designed AP₅₀		3.00 m³/(h.m²) @ 50 Pa				
Test Method		Blower Door				
19.0 Mechanical Ventilation						
Mechanical Ventilation						
Mechanical Ventilation System Present		Yes				
Approved Installation		No				
Mechanical Ventilation data Type		Database				
Type		Balanced mechanical ventilation with heat recovery				
MV Reference Number		500167				
Configuration		1				
Manufacturer SFP		0.52				
Duct Type		Rigid				
MVHR Efficiency		92.00				
Wet Rooms		1				
SFP from Installer Commissioning Certificate		No				
MVHR System Location		Inside heated envelope (installed exclusively)				
Duct Installation Specification		Level 1				
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	100.00	5	500	10	
24.0 Main Heating 1						
		SAP table				
Percentage of Heat		100.00 %				
Fuel Type		Electricity				
SAP Code		524				
In Winter		170.00				
In Summer		170.00				
Controls SAP Code		2506				
25.0 Main Heating 2						
		None				

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

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	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

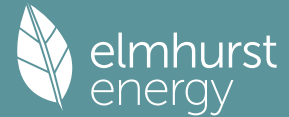
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 9	Prop Type Ref		
Property				

SAP Rating	81 B	DER	7.01	TER	20.05
Environmental	96 A	% DER < TER			65.04
CO ₂ Emissions (t/year)	0.21	DFEE	41.87	TFEE	42.02
Compliance Check	See BREL	% DFEE < TFEE			0.37
% DPER < TPER	30.41	DPER	74.57	TPER	107.15

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	1
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 13.40 m	Internal Floor Area 31.70 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	20.10 20.10	13.50 18.21	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	34.80		None

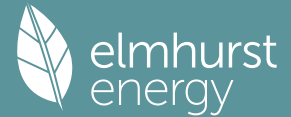
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	66.00

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.70

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.70

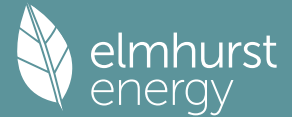
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00
13.0 Openings						
Name	Opening Type	Location	Orientation	Area (m²)	Pitch	
Door to corridor	Door	Wall to Untd	North	1.89		
SW Glazing	Glazing	External Wall 1	East	6.60		
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	3.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes	
E5 Ground floor (normal)	Independently assessed	13.40	0.14	0.14	Yes	
E18 Party wall between dwellings	Independently assessed	11.60	0.06	0.06	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	23.20	0.00	0.00	No	
Y-value						
		0.06 W/m²K				
18.0 Pressure Testing						
		Yes				
Designed AP ₅₀			3.00 m³/(h.m²) @ 50 Pa			
Test Method	Blower Door					
19.0 Mechanical Ventilation						
Mechanical Ventilation						
Mechanical Ventilation System Present	Yes					
Approved Installation	No					
Mechanical Ventilation data Type	Database					
Type	Balanced mechanical ventilation with heat recovery					
MV Reference Number	500167					
Configuration	1					
Manufacturer SFP	0.52					
Duct Type	Rigid					
MVHR Efficiency	92.00					
Wet Rooms	1					
SFP from Installer Commissioning Certificate	No					
MVHR System Location	Inside heated envelope (installed exclusively)					
Duct Installation Specification	Level 1					
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	100.00	5	500	10	
24.0 Main Heating 1						
		SAP table				
Percentage of Heat			100.00 %			
Fuel Type	Electricity					
SAP Code	524					
In Winter	170.00					
In Summer	170.00					
Controls SAP Code	2506					
25.0 Main Heating 2						
		None				

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

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	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

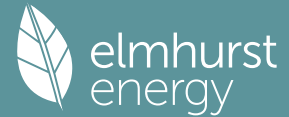
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 10	Prop Type Ref		
Property				

SAP Rating	81 B	DER	7.07	TER	19.24
Environmental	96 A	% DER < TER			63.25
CO ₂ Emissions (t/year)	0.21	DFEE	42.74	TFEE	42.85
Compliance Check	See BREL	% DFEE < TFEE			0.27
% DPER < TPER	26.33	DPER	75.23	TPER	102.11

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	1
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 13.90 m	Internal Floor Area 31.70 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	37.50 4.20	30.90 2.31	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	17.40		None

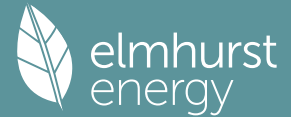
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	66.00

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.70

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.70

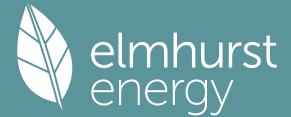
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00
13.0 Openings						
Name	Opening Type	Location	Orientation	Area (m²)	Pitch	
Door to corridor	Door	Wall to Untd	North	1.89		
N Glazing	Glazing	External Wall 1	North	6.60		
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	3.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes	
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	13.90	0.05	0.05	Yes	
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No	
E18 Party wall between dwellings	Independently assessed	5.80	0.06	0.06	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	11.60	0.00	0.00	No	
Y-value						
		0.04 W/m²K				
18.0 Pressure Testing						
		Yes				
Designed AP ₅₀			3.00 m³/(h.m²) @ 50 Pa			
Test Method	Blower Door					
19.0 Mechanical Ventilation						
Mechanical Ventilation						
Mechanical Ventilation System Present	Yes					
Approved Installation	No					
Mechanical Ventilation data Type	Database					
Type	Balanced mechanical ventilation with heat recovery					
MV Reference Number	500167					
Configuration	1					
Manufacturer SFP	0.52					
Duct Type	Rigid					
MVHR Efficiency	92.00					
Wet Rooms	1					
SFP from Installer Commissioning Certificate	No					
MVHR System Location	Inside heated envelope (installed exclusively)					
Duct Installation Specification	Level 1					
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	100.00	5	500	10	
24.0 Main Heating 1						
		SAP table				
Percentage of Heat			100.00 %			
Fuel Type	Electricity					
SAP Code	524					
In Winter	170.00					
In Summer	170.00					
Controls SAP Code	2506					
25.0 Main Heating 2						
		None				

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

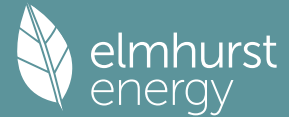
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 11	Prop Type Ref		
Property				

SAP Rating	82 B	DER	6.65	TER	17.96
Environmental	96 A	% DER < TER			62.97
CO ₂ Emissions (t/year)	0.2	DFEE	36.53	TFEE	36.71
Compliance Check	See BREL	% DFEE < TFEE			0.48
% DPER < TPER	25.54	DPER	70.89	TPER	95.21

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	East
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	1
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 14.00 m	Internal Floor Area 31.90 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	38.40 3.60	31.80 1.71	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	34.20		None

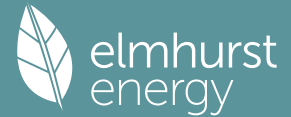
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	52.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.90

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.90

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00 1.20
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13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor S Glazing	Door Glazing	Wall to Untd External Wall 1	East South	1.89 6.60	

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	3.90	0.30	0.30	Yes
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	12.60	0.05	0.05	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	14.00	0.07	0.07	Yes
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	11.40	0.06	0.06	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	22.80	0.00	0.00	No

Y-value

0.05

W/m²K

18.0 Pressure Testing

Yes

Designed AP₅₀

3.00

m³/(h.m²) @ 50 Pa

Test Method

Blower Door

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Yes

Approved Installation

No

Mechanical Ventilation data Type

Database

Type

Balanced mechanical ventilation with heat recovery

MV Reference Number

500167

Configuration

1

Manufacturer SFP

0.52

Duct Type

Rigid

MVHR Efficiency

92.00

Wet Rooms

1

SFP from Installer Commissioning Certificate

No

MVHR System Location

Inside heated envelope (installed exclusively)

Duct Installation Specification

Level 1

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	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat

100.00

%

Fuel Type

Electricity

SAP Code

524

In Winter

170.00

In Summer

170.00

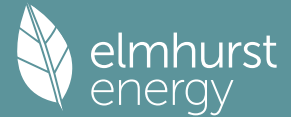
Controls SAP Code

2506

25.0 Main Heating 2

None

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
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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
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 12	Prop Type Ref		
Property				

SAP Rating	82 B	DER	6.57	TER	17.78
Environmental	96 A	% DER < TER			63.05
CO ₂ Emissions (t/year)	0.19	DFEE	34.94	TFEE	35.01
Compliance Check	See BREL	% DFEE < TFEE			0.19
% DPER < TPER	25.71	DPER	70.06	TPER	94.30

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	South
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	1
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 12.40 m	Internal Floor Area 31.40 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40 m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	18.60 18.60	12.00 16.71	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	19.20		None

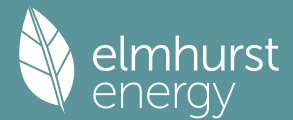
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	64.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.40

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.40

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00 1.20
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13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor S Glazing	Door Glazing	Wall to Untd External Wall 1	South South	1.89 6.60	

14.0 Conservatory

15.0 Draught Proofing

 %

16.0 Draught Lobby

17.0 Thermal Bridging

17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	3.90	0.30	0.30	Yes
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	12.60	0.04	0.04	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	12.40	0.07	0.07	Yes
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	6.40	0.06	0.06	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	12.80	0.00	0.00	No

Y-value	0.05	W/m²K
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18.0 Pressure Testing

	Yes	
Designed AP ₅₀	3.00	m³/(h.m²) @ 50 Pa
Test Method	Blower Door	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500167
Configuration	1
Manufacturer SFP	0.52
Duct Type	Rigid
MVHR Efficiency	92.00
Wet Rooms	1
SFP from Installer Commissioning Certificate	No
MVHR System Location	Inside heated envelope (installed exclusively)
Duct Installation Specification	Level 1

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

22.0 Lighting

No Fixed Lighting	No
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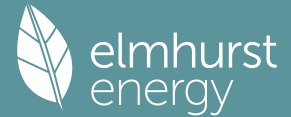
Name	Efficacy	Power	Capacity	Count
Lighting 1	100.00	5	500	10

24.0 Main Heating 1

	SAP table
Percentage of Heat	100.00 %
Fuel Type	Electricity
SAP Code	524
In Winter	170.00
In Summer	170.00
Controls SAP Code	2506

25.0 Main Heating 2

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Cylinder Stat	Yes	
Cylinder In Heated Space	Yes	
Independent Time Control	Yes	
Insulation Type	Measured Loss	
Cylinder Volume	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

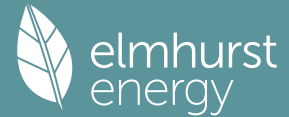
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 13	Prop Type Ref		
Property				

SAP Rating	82 B	DER	6.46	TER	17.47
Environmental	97 A	% DER < TER			63.02
CO ₂ Emissions (t/year)	0.19	DFEE	34.24	TFEE	34.38
Compliance Check	See BREL	% DFEE < TFEE			0.40
% DPER < TPER	25.58	DPER	68.91	TPER	92.59

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	South
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	1
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 12.40 m	Internal Floor Area 31.90 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40 m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build System Build	Other Other	0.15 0.15	0.00 0.00	18.60 18.60	12.00 16.71	0.00 0.00	None None	6.60 1.89	Enter Gross Area Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	18.60		None

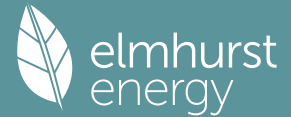
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	64.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.90

Description	Type	Storey Index	Construction	U-Value (W/m ² K)	Shelter Code	Shelter Factor	Kappa (kJ/m ² K)	Area (m ²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Suspended concrete floor, carpeted	0.10	None	0.00	75.00	31.90

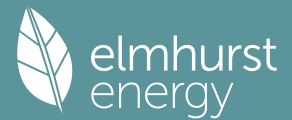
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m ² K)
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Summary for Input Data



Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05	0.63	0.70	2.00
13.0 Openings						
Name	Opening Type	Location	Orientation	Area (m²)	Pitch	
Door to corridor S Glazing	Door Glazing	Wall to Untd External Wall 1	South South	1.89 6.60		
14.0 Conservatory						
15.0 Draught Proofing						
16.0 Draught Lobby						
17.0 Thermal Bridging						
17.1 List of Bridges						
Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported	
E2 Other lintels (including other steel lintels)	Independently assessed	3.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	12.60	0.04	0.04	Yes	
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	12.40	0.07	0.07	Yes	
E18 Party wall between dwellings	Independently assessed	6.20	0.06	0.06	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	12.40	0.00	0.00	No	
Y-value	0.04			W/m²K		
18.0 Pressure Testing						
Designed AP ₅₀	3.00			m³/(h.m²) @ 50 Pa		
Test Method	Blower Door					
19.0 Mechanical Ventilation						
Mechanical Ventilation						
Mechanical Ventilation System Present	Yes					
Approved Installation	No					
Mechanical Ventilation data Type	Database					
Type	Balanced mechanical ventilation with heat recovery					
MV Reference Number	500167					
Configuration	1					
Manufacturer SFP	0.52					
Duct Type	Rigid					
MVHR Efficiency	92.00					
Wet Rooms	1					
SFP from Installer Commissioning Certificate	No					
MVHR System Location	Inside heated envelope (installed exclusively)					
Duct Installation Specification	Level 1					
20.0 Fans, Open Fireplaces, Flues						
21.0 Fixed Cooling System						
22.0 Lighting						
No Fixed Lighting	No					
	Name	Efficacy	Power	Capacity	Count	
	Lighting 1	100.00	5	500	10	
24.0 Main Heating 1						
Percentage of Heat	100.00			%		
Fuel Type	Electricity					
SAP Code	524					
In Winter	170.00					
In Summer	170.00					
Controls SAP Code	2506					
25.0 Main Heating 2						
None						

Summary for Input Data



26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

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	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

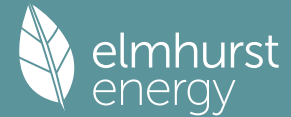
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 14	Prop Type Ref		
Property				

SAP Rating	80 C	DER	7.34	TER	18.26
Environmental	96 A	% DER < TER			59.80
CO ₂ Emissions (t/year)	0.22	DFEE	32.59	TFEE	32.68
Compliance Check	See BREL	% DFEE < TFEE			0.29
% DPER < TPER	19.68	DPER	78.30	TPER	97.49

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	West
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	1
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
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 14.00 m	Internal Floor Area 31.90 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40 m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build	Other	0.15	0.00	38.40	31.80	0.00	None	6.60	Enter Gross Area
	System Build	Other	0.15	0.00	3.60	1.71	0.00	None	1.89	Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	33.60		None

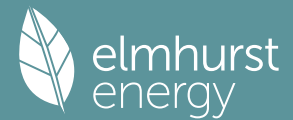
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	52.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.90

Description	Storey Index	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	31.90

12.0 Opening Types

Summary for Input Data



Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05			0.63		0.70	2.00 1.20

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	West	1.89	
S Glazing	Glazing	External Wall 1	South	6.60	

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	3.90	0.30	0.30	Yes
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	12.60	0.04	0.04	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	14.00	0.04	0.04	Yes
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	11.20	0.04	0.04	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	22.40	0.00	0.00	No

Y-value

0.07

W/m²K

18.0 Pressure Testing

Yes

Designed AP₅₀

3.00

m³/(h.m²) @ 50 Pa

Test Method

Blower Door

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Yes

Approved Installation

No

Mechanical Ventilation data Type

Database

Type

Balanced mechanical ventilation with heat recovery

MV Reference Number

500167

Configuration

1

Manufacturer SFP

0.52

Duct Type

Rigid

MVHR Efficiency

92.00

Wet Rooms

1

SFP from Installer Commissioning Certificate

No

MVHR System Location

Inside heated envelope (installed exclusively)

Duct Installation Specification

Level 1

19.1 Mechanical extract ventilation - Decentralised

SFP	Fan/Room Type	Count
0.14	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
0.08	Through Wall Fan Kitchen	0
0.08	Through Wall Fan Other Wet Room	0

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

No

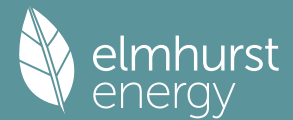
22.0 Lighting

No Fixed Lighting

No

Name	Efficacy	Power	Capacity	Count
Lighting 1	100.00	5	500	10

Summary for Input Data



24.0 Main Heating 1

SAP table	
Percentage of Heat	100.00 %
Fuel Type	Electricity
SAP Code	524
In Winter	170.00
In Summer	170.00
Controls SAP Code	2506

25.0 Main Heating 2

None

26.0 Heat Networks

Space Community Heating

None

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder	
Cylinder Stat	No
Cylinder In Heated Space	No
Independent Time Control	No
Insulation Type	Measured Loss
Cylinder Volume	170.00 L
Loss	1.23 kWh/day
Pipes insulation	Fully insulated primary pipework
In Airing Cupboard	No

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

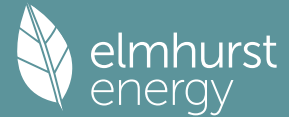
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 15	Prop Type Ref		
Property				

SAP Rating	79 C	DER	7.68	TER	19.36
Environmental	96 A	% DER < TER			60.33
CO ₂ Emissions (t/year)	0.23	DFEE	37.90	TFEE	37.99
Compliance Check	See BREL	% DFEE < TFEE			0.23
% DPER < TPER	20.95	DPER	81.75	TPER	103.42

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	1
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
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:	14.00 m	31.80 m ²	3.00 m

8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	System Build	Other	0.15	0.00	37.50	30.90	0.00	None	6.60	Enter Gross Area
Wall to Untd	System Build	Other	0.15	0.00	4.50	2.61	0.00	None	1.89	Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	32.40		None

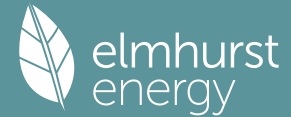
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	64.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.80

Description	Storey Index	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	31.80

12.0 Opening Types

Summary for Input Data



Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05			0.63		0.70	2.00 1.20

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	North	1.89	
N Glazing	Glazing	External Wall 1	North	6.60	

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	3.90	0.30	0.30	Yes
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	12.60	0.03	0.03	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	14.00	0.04	0.04	Yes
E16 Corner (normal)	Independently assessed	3.00	0.05	0.05	No
E18 Party wall between dwellings	Independently assessed	10.80	0.04	0.04	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	21.60	0.00	0.00	No

Y-value

0.07

W/m²K

18.0 Pressure Testing

Yes

Designed AP₅₀

3.00

m³/(h.m²) @ 50 Pa

Test Method

Blower Door

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Yes

Approved Installation

No

Mechanical Ventilation data Type

Database

Type

Balanced mechanical ventilation with heat recovery

MV Reference Number

500167

Configuration

1

Manufacturer SFP

0.52

Duct Type

Rigid

MVHR Efficiency

92.00

Wet Rooms

1

SFP from Installer Commissioning Certificate

No

MVHR System Location

Inside heated envelope (installed exclusively)

Duct Installation Specification

Level 1

19.1 Mechanical extract ventilation - Decentralised

SFP	Fan/Room Type	Count
0.14	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
0.08	Through Wall Fan Kitchen	0
0.08	Through Wall Fan Other Wet Room	0

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

No

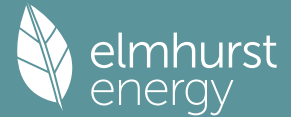
22.0 Lighting

No Fixed Lighting

No

Name	Efficacy	Power	Capacity	Count
Lighting 1	100.00	5	500	10

Summary for Input Data



24.0 Main Heating 1

SAP table	
Percentage of Heat	100.00 %
Fuel Type	Electricity
SAP Code	524
In Winter	170.00
In Summer	170.00
Controls SAP Code	2506

25.0 Main Heating 2

None

26.0 Heat Networks

Space Community Heating

None

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder	
Cylinder Stat	No
Cylinder In Heated Space	No
Independent Time Control	No
Insulation Type	Measured Loss
Cylinder Volume	170.00 L
Loss	1.23 kWh/day
Pipes insulation	Fully insulated primary pipework
In Airing Cupboard	No

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

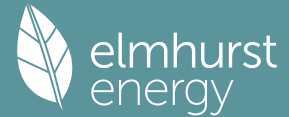
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 16	Prop Type Ref		
Property				

SAP Rating	80 C	DER	7.55	TER	19.06
Environmental	96 A	% DER < TER			60.39
CO ₂ Emissions (t/year)	0.23	DFEE	36.31	TFEE	36.36
Compliance Check	See BREL	% DFEE < TFEE			0.14
% DPER < TPER	21.04	DPER	80.40	TPER	101.82

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	1
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 13.40 m	Internal Floor Area 31.70 m ²	Average Storey Height 3.00 m
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8.0 Living Area	11.40	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1 Wall to Untd	System Build	Other	0.15	0.00	20.10	13.50	0.00	None	6.60	Enter Gross Area
	System Build	Other	0.15	0.00	20.10	18.21	0.00	None	1.89	Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	34.80		None

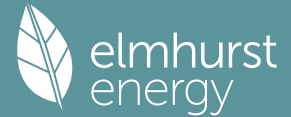
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	64.80

Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	31.70

Description	Storey Index	Construction	Kappa (kJ/m ² K)	Area (m ²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	31.70

12.0 Opening Types

Summary for Input Data



Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door Glazing	Manufacturer	Door to Corridor Window	Double Low-E Soft 0.05			0.63		0.70	2.00 1.20

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	North	1.89	
N Glazing	Glazing	External Wall 1	North	6.60	

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	3.90	0.30	0.30	Yes
E3 Sill	Independently assessed	3.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	12.60	0.02	0.02	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	13.40	0.02	0.02	Yes
E18 Party wall between dwellings	Independently assessed	11.60	0.04	0.04	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	23.20	0.00	0.00	No

Y-value

0.06

 W/m²K

18.0 Pressure Testing

Yes

Designed AP₅₀

3.00

 m³/(h.m²) @ 50 Pa

Test Method

Blower Door

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Yes

Approved Installation

No

Mechanical Ventilation data Type

Database

Type

Balanced mechanical ventilation with heat recovery

MV Reference Number

500167

Configuration

1

Manufacturer SFP

0.52

Duct Type

Rigid

MVHR Efficiency

92.00

Wet Rooms

1

SFP from Installer Commissioning Certificate

No

MVHR System Location

Inside heated envelope (installed exclusively)

Duct Installation Specification

Level 1

19.1 Mechanical extract ventilation - Decentralised

SFP	Fan/Room Type	Count
0.14	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
0.08	Through Wall Fan Kitchen	0
0.08	Through Wall Fan Other Wet Room	0

20.0 Fans, Open Fireplaces, Flues

21.0 Fixed Cooling System

No

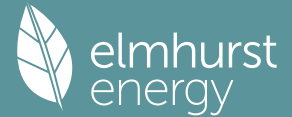
22.0 Lighting

No Fixed Lighting

No

Name	Efficacy	Power	Capacity	Count
Lighting 1	100.00	5	500	10

Summary for Input Data



24.0 Main Heating 1

0 Main Heating 1	SAP table	
Percentage of Heat	100.00	%
Fuel Type	Electricity	
SAP Code	524	
In Winter	170.00	
In Summer	170.00	
Controls SAP Code	2506	

25.0 Main Heating 2

None

26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	170.00	L
Loss	1.23	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

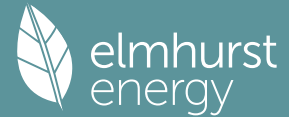
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 17	Prop Type Ref		
Property				

SAP Rating	78 C	DER	5.97	TER	14.59
Environmental	96 A	% DER < TER			59.08
CO ₂ Emissions (t/year)	0.33	DFEE	37.46	TFEE	38.09
Compliance Check	See BREL	% DFEE < TFEE			1.65
% DPER < TPER	18.05	DPER	63.16	TPER	77.07

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	2
2.0 Number of Storeys	2
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	13.40 m	31.70 m ²	3.00 m
		10.20 m	27.30 m ²	3.00 m

8.0 Living Area	26.00	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Wall to Untd	System Build	Other	0.15	0.00	35.40	24.00	0.00	None	11.40	Enter Gross Area
		System Build	Other	0.15	0.00	35.40	33.51	0.00	None	1.89	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other		0.00	0.00	75.60		None

9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame		9.00	99.60

10.0 External Roofs	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof		0.10	9.00	27.30	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor		38.00

11.1 Party Floors

Summary for Input Data

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	38.00

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	27.30

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door	Manufacturer	Door to Corridor							2.00
Glazing	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	North	1.89	
N Glazing	Glazing	External Wall 1	North	11.40	

14.0 Conservatory	None
15.0 Draught Proofing	100 %
16.0 Draught Lobby	No
17.0 Thermal Bridging	Calculate Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	5.90	0.30	0.30	Yes
E3 Sill	Independently assessed	5.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	17.40	0.04	0.04	Yes
E6 Intermediate floor within a dwelling	Independently assessed	10.20	0.03	0.03	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	13.40	0.03	0.03	Yes
E14 Flat roof	Independently assessed	10.20	0.08	0.08	Yes
E16 Corner (normal)	Independently assessed	6.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	25.20	0.05	0.05	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	3.00	-0.09	-0.09	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	25.20	0.00	0.00	No

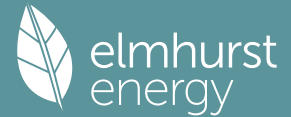
Y-value	0.06	W/m²K
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18.0 Pressure Testing	Yes	
Designed AP ₅₀	3.00	m³/(h.m²) @ 50 Pa
Test Method	Blower Door	

19.0 Mechanical Ventilation	
Mechanical Ventilation	
Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500167
Configuration	1
Manufacturer SFP	0.52
Duct Type	Rigid
MVHR Efficiency	92.00
Wet Rooms	1
SFP from Installer Commissioning Certificate	No
MVHR System Location	Inside heated envelope (installed exclusively)
Duct Installation Specification	Level 1

19.1 Mechanical extract ventilation - Decentralised		
SFP	Fan/Room Type	Count
0.14	In Room Fan Kitchen	0
0.11	In Room Fan Other Wet Room	0
0.00	In Duct Fan Kitchen	0

Summary for Input Data



0.00 In Duct Fan Other 0
 0.08 Wet Room
 Through Wall Fan 0
 Kitchen
 0.08 Through Wall Fan 0
 Other Wet Room

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	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat

100.00

%

Fuel Type

Electricity

SAP Code

524

In Winter

170.00

In Summer

170.00

Controls SAP Code

2506

25.0 Main Heating 2

None

26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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

No

Cold Water Source

From mains

Bath Count

1

Supplementary Immersion

No

Immersion Only Heating Hot Water

No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder

Cylinder Stat

No

Cylinder In Heated Space

No

Independent Time Control

No

Insulation Type

Measured Loss

Cylinder Volume

170.00

L

Loss

1.23

kWh/day

Pipes insulation

Fully insulated primary pipework

In Airing Cupboard

No

Summary for Input Data



31.0 Thermal Store

None

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
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 18	Prop Type Ref		
Property				

SAP Rating	78 C	DER	5.77	TER	13.83
Environmental	96 A	% DER < TER			58.28
CO ₂ Emissions (t/year)	0.34	DFEE	35.76	TFEE	36.14
Compliance Check	See BREL	% DFEE < TFEE			1.07
% DPER < TPER	16.42	DPER	61.08	TPER	73.08

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	2
2.0 Number of Storeys	2
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	15.30 m	37.60 m ²	3.00 m
		10.90 m	26.64 m ²	3.00 m

8.0 Living Area	26.00	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Wall to Untd	System Build	Other	0.15	0.00	70.20	61.80	0.00	None	8.40	Enter Gross Area
		System Build	Other	0.15	0.00	8.40	6.51	0.00	None	1.89	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other		0.00	0.00	62.10		None

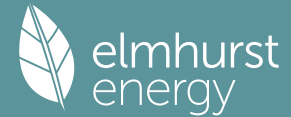
9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame		9.00	91.20

10.0 External Roofs	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof		0.10	9.00	26.64	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor		37.60

11.1 Party Floors

Summary for Input Data



Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	37.60

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	26.64

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door	Manufacturer	Door to Corridor							2.00
Glazing	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	North	1.89	
N Glazing	Glazing	External Wall 1	North	8.40	

14.0 Conservatory	None
15.0 Draught Proofing	100 %
16.0 Draught Lobby	No
17.0 Thermal Bridging	Calculate Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	4.90	0.30	0.30	Yes
E3 Sill	Independently assessed	4.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	16.20	0.04	0.04	Yes
E6 Intermediate floor within a dwelling	Independently assessed	10.90	0.07	0.07	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	15.30	0.07	0.07	Yes
E14 Flat roof	Independently assessed	10.90	0.08	0.08	Yes
E16 Corner (normal)	Independently assessed	18.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	20.70	0.06	0.06	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	3.00	-0.09	-0.09	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	20.70	0.00	0.00	No

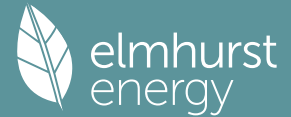
Y-value	0.07 W/m²K
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18.0 Pressure Testing	Yes
Designed AP ₅₀	3.00 m³/(h.m²) @ 50 Pa
Test Method	Blower Door

19.0 Mechanical Ventilation	
Mechanical Ventilation	
Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500167
Configuration	1
Manufacturer SFP	0.52
Duct Type	Rigid
MVHR Efficiency	92.00
Wet Rooms	1
SFP from Installer Commissioning Certificate	No
MVHR System Location	Inside heated envelope (installed exclusively)
Duct Installation Specification	Level 1

19.1 Mechanical extract ventilation - Decentralised		
SFP	Fan/Room Type	Count
0.14	In Room Fan Kitchen	0
0.11	In Room Fan Other Wet Room	0
0.00	In Duct Fan Kitchen	0

Summary for Input Data



0.00 In Duct Fan Other 0
 0.08 Wet Room
 Through Wall Fan 0
 Kitchen
 0.08 Through Wall Fan 0
 Other Wet Room

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	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat

100.00

%

Fuel Type

Electricity

SAP Code

524

In Winter

170.00

In Summer

170.00

Controls SAP Code

2506

25.0 Main Heating 2

None

26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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

No

Cold Water Source

From mains

Bath Count

1

Supplementary Immersion

No

Immersion Only Heating Hot Water

No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder

Cylinder Stat

No

Cylinder In Heated Space

No

Independent Time Control

No

Insulation Type

Measured Loss

Cylinder Volume

170.00

L

Loss

1.23

kWh/day

Pipes insulation

Fully insulated primary pipework

In Airing Cupboard

No

Summary for Input Data



31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

Recommendations

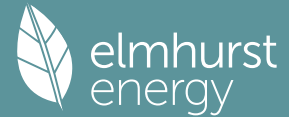
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 19	Prop Type Ref		
Property				

SAP Rating	79 C	DER	5.28	TER	12.63
Environmental	96 A	% DER < TER			58.19
CO ₂ Emissions (t/year)	0.32	DFEE	31.22	TFEE	31.76
Compliance Check	See BREL	% DFEE < TFEE			1.68
% DPER < TPER	15.76	DPER	56.03	TPER	66.51

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	East
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	2
2.0 Number of Storeys	2
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	15.40 m	36.00 m ²	3.00 m
		5.80 m	29.51 m ²	3.00 m

8.0 Living Area	24.80	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area (m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Wall to Untd	System Build	Other	0.15	0.00	55.80	44.40	0.00	None	11.40	Enter Gross Area
		System Build	Other	0.15	0.00	7.80	5.91	0.00	None	1.89	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other		0.00	0.00	52.50		None

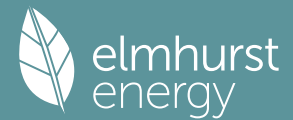
9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame		9.00	100.80

10.0 External Roofs	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area (m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof		0.10	9.00	29.51	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor		36.00

11.1 Party Floors

Summary for Input Data



Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	36.00

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	29.51

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door	Manufacturer	Door to Corridor							2.00
Glazing	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	East	1.89	
S Glazing	Glazing	External Wall 1	South	11.40	

14.0 Conservatory	None
15.0 Draught Proofing	100 %
16.0 Draught Lobby	No
17.0 Thermal Bridging	Calculate Bridges

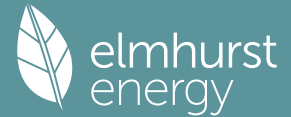
Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	5.90	0.30	0.30	Yes
E3 Sill	Independently assessed	5.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	17.40	0.04	0.04	Yes
E6 Intermediate floor within a dwelling	Independently assessed	5.80	0.07	0.07	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	15.40	0.03	0.03	Yes
E14 Flat roof	Independently assessed	5.80	0.08	0.08	Yes
E16 Corner (normal)	Independently assessed	18.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	17.50	0.06	0.06	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	3.00	-0.09	-0.09	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	17.50	0.00	0.00	No

Y-value	0.07 W/m²K
18.0 Pressure Testing	Yes
Designed AP ₅₀	3.00 m³/(h.m²) @ 50 Pa
Test Method	Blower Door

19.0 Mechanical Ventilation	
Mechanical Ventilation	
Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500167
Configuration	1
Manufacturer SFP	0.52
Duct Type	Rigid
MVHR Efficiency	92.00
Wet Rooms	1
SFP from Installer Commissioning Certificate	No
MVHR System Location	Inside heated envelope (installed exclusively)
Duct Installation Specification	Level 1

19.1 Mechanical extract ventilation - Decentralised		
SFP	Fan/Room Type	Count
0.14	In Room Fan Kitchen	0
0.11	In Room Fan Other Wet Room	0
0.00	In Duct Fan Kitchen	0

Summary for Input Data



0.00 In Duct Fan Other 0
 0.08 Wet Room
 Through Wall Fan 0
 Kitchen
 0.08 Through Wall Fan 0
 Other Wet Room

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	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat

100.00

%

Fuel Type

Electricity

SAP Code

524

In Winter

170.00

In Summer

170.00

Controls SAP Code

2506

25.0 Main Heating 2

None

26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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

No

Cold Water Source

From mains

Bath Count

1

Supplementary Immersion

No

Immersion Only Heating Hot Water

No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder

Cylinder Stat

No

Cylinder In Heated Space

No

Independent Time Control

No

Insulation Type

Measured Loss

Cylinder Volume

170.00

L

Loss

1.23

kWh/day

Pipes insulation

Fully insulated primary pipework

In Airing Cupboard

No

Summary for Input Data



31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

Recommendations

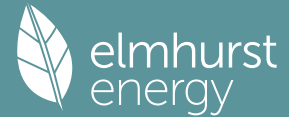
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 20	Prop Type Ref		
Property				

SAP Rating	78 C	DER	5.66	TER	13.60
Environmental	96 A	% DER < TER			58.38
CO ₂ Emissions (t/year)	0.34	DFEE	35.72	TFEE	36.28
Compliance Check	See BREL	% DFEE < TFEE			1.54
% DPER < TPER	16.57	DPER	59.86	TPER	71.74

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	South
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	2
2.0 Number of Storeys	2
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	18.80 m	37.20 m ²	3.00 m
		10.90 m	27.31 m ²	3.00 m

8.0 Living Area	25.90	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Wall to Untd	System Build	Other	0.15	0.00	39.00	27.60	0.00	None	11.40	Enter Gross Area
		System Build	Other	0.15	0.00	50.10	48.21	0.00	None	1.89	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other		0.00	0.00	51.90		None

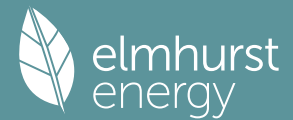
9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame		9.00	83.40

10.0 External Roofs	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof		0.10	9.00	29.51	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor		36.00

11.1 Party Floors

Summary for Input Data



Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	37.20

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	27.31

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door	Manufacturer	Door to Corridor							2.00
Glazing	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	South	1.89	
S Glazing	Glazing	External Wall 1	West	11.40	

14.0 Conservatory	None
15.0 Draught Proofing	100 %
16.0 Draught Lobby	No
17.0 Thermal Bridging	Calculate Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	5.90	0.30	0.30	Yes
E3 Sill	Independently assessed	5.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	17.40	0.05	0.05	Yes
E6 Intermediate floor within a dwelling	Independently assessed	10.90	0.04	0.04	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	18.80	0.05	0.05	Yes
E16 Corner (normal)	Independently assessed	3.00	0.07	0.07	No
E18 Party wall between dwellings	Independently assessed	17.30	0.06	0.06	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	3.00	-0.09	-0.09	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	17.30	0.00	0.00	No

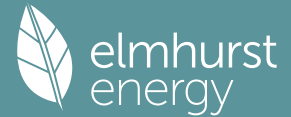
Y-value	0.04 W/m²K
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18.0 Pressure Testing	Yes
Designed AP ₅₀	3.00 m³/(h.m²) @ 50 Pa
Test Method	Blower Door

19.0 Mechanical Ventilation	
Mechanical Ventilation	
Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500167
Configuration	1
Manufacturer SFP	0.52
Duct Type	Rigid
MVHR Efficiency	92.00
Wet Rooms	1
SFP from Installer Commissioning Certificate	No
MVHR System Location	Inside heated envelope (installed exclusively)
Duct Installation Specification	Level 1

19.1 Mechanical extract ventilation - Decentralised		
SFP	Fan/Room Type	Count
0.14	In Room Fan	0
	Kitchen	
0.11	In Room Fan Other	0
	Wet Room	
0.00	In Duct Fan Kitchen	0

Summary for Input Data



0.00 In Duct Fan Other 0
 0.08 Wet Room
 Through Wall Fan 0
 Kitchen
 0.08 Through Wall Fan 0
 Other Wet Room

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	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat

100.00

%

Fuel Type

Electricity

SAP Code

524

In Winter

170.00

In Summer

170.00

Controls SAP Code

2506

25.0 Main Heating 2

None

26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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

No

Cold Water Source

From mains

Bath Count

1

Supplementary Immersion

No

Immersion Only Heating Hot Water

No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder

Cylinder Stat

No

Cylinder In Heated Space

No

Independent Time Control

No

Insulation Type

Measured Loss

Cylinder Volume

170.00

L

Loss

1.23

kWh/day

Pipes insulation

Fully insulated primary pipework

In Airing Cupboard

No

Summary for Input Data



31.0 Thermal Store

None

34.0 Small-scale Hydro

None

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

Recommendations

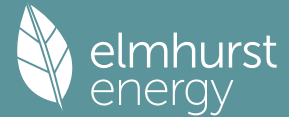
Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost	Typical savings per year	Ratings after improvement	
		SAP rating	Environmental Impact
		0	0
		0	0
		0	0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 21	Prop Type Ref		
Property				

SAP Rating	78 C	DER	5.67	TER	13.60
Environmental	96 A	% DER < TER			58.31
CO ₂ Emissions (t/year)	0.34	DFEE	35.91	TFEE	36.26
Compliance Check	See BREL	% DFEE < TFEE			0.98
% DPER < TPER	16.27	DPER	60.03	TPER	71.70

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	South
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Mid-floor flat
Which Floor	2
2.0 Number of Storeys	2
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	18.80 m	37.20 m ²	3.00 m
		11.30 m	27.36 m ²	3.00 m

8.0 Living Area	25.90	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Wall to Untd	System Build	Other	0.15	0.00	39.00	27.60	0.00	None	11.40	Enter Gross Area
		System Build	Other	0.15	0.00	50.10	48.21	0.00	None	1.89	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other		0.00	0.00	51.90		None

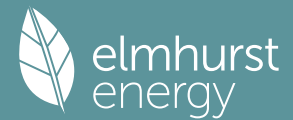
9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame		9.00	83.40

10.0 External Roofs	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof		0.10	9.00	29.51	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor		36.00

11.1 Party Floors

Summary for Input Data



Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	37.20

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	27.31

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door	Manufacturer	Door to Corridor							2.00
Glazing	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	South	1.89	
S Glazing	Glazing	External Wall 1	West	11.40	

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	5.90	0.30	0.30	Yes
E3 Sill	Independently assessed	5.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	17.40	0.05	0.05	Yes
E6 Intermediate floor within a dwelling	Independently assessed	10.90	0.07	0.07	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	18.80	0.05	0.05	Yes
E16 Corner (normal)	Independently assessed	3.00	0.07	0.07	No
E18 Party wall between dwellings	Independently assessed	17.40	0.06	0.06	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	3.00	-0.09	-0.09	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	17.40	0.00	0.00	No

Y-value

0.05

W/m²K

18.0 Pressure Testing

Yes

Designed AP₅₀

3.00

m³/(h.m²) @ 50 Pa

Test Method

Blower Door

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present

Yes

Approved Installation

No

Mechanical Ventilation data Type

Database

Type

Balanced mechanical ventilation with heat recovery

MV Reference Number

500167

Configuration

1

Manufacturer SFP

0.52

Duct Type

Rigid

MVHR Efficiency

92.00

Wet Rooms

1

SFP from Installer Commissioning Certificate

No

MVHR System Location

Inside heated envelope (installed exclusively)

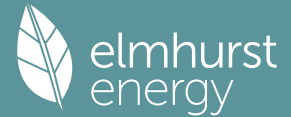
Duct Installation Specification

Level 1

19.1 Mechanical extract ventilation - Decentralised

SFP	Fan/Room Type	Count
0.14	In Room Fan	0
	Kitchen	
0.11	In Room Fan Other	0
	Wet Room	
0.00	In Duct Fan Kitchen	0

Summary for Input Data



0.00 In Duct Fan Other 0
 0.08 Wet Room
 Through Wall Fan 0
 Kitchen
 0.08 Through Wall Fan 0
 Other Wet Room

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	100.00	5	500	10

24.0 Main Heating 1

SAP table

Percentage of Heat

100.00

%

Fuel Type

Electricity

SAP Code

524

In Winter

170.00

In Summer

170.00

Controls SAP Code

2506

25.0 Main Heating 2

None

26.0 Heat Networks

None

Space Community Heating

Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1									
Heat source 2									
Heat source 3									
Heat source 4									
Heat source 5									

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

No

Cold Water Source

From mains

Bath Count

1

Supplementary Immersion

No

Immersion Only Heating Hot Water

No

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder

Hot Water Cylinder

Cylinder Stat

No

Cylinder In Heated Space

No

Independent Time Control

No

Insulation Type

Measured Loss

Cylinder Volume

170.00

L

Loss

1.23

kWh/day

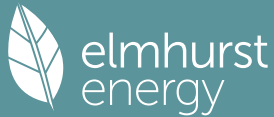
Pipes insulation

Fully insulated primary pipework

In Airing Cupboard

No

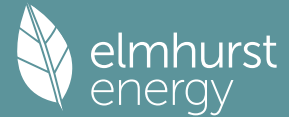
Summary for Input Data



31.0 Thermal Store	None											
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						
					0	0						
					0	0						
					0	0						

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 22	Prop Type Ref		
Property				

SAP Rating	79 C	DER	5.46	TER	13.01
Environmental	96 A	% DER < TER			58.03
CO ₂ Emissions (t/year)	0.33	DFEE	33.17	TFEE	33.56
Compliance Check	See BREL	% DFEE < TFEE			1.16
% DPER < TPER	15.55	DPER	57.89	TPER	68.55

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	West
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Top-floor flat
Which Floor	2
2.0 Number of Storeys	2
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	15.60 m	36.00 m ²	3.00 m
		11.30 m	29.56 m ²	3.00 m

8.0 Living Area	24.80	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area (m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Wall to Untd	System Build	Other	0.15	0.00	72.90	61.50	0.00	None	11.40	Enter Gross Area
		System Build	Other	0.15	0.00	7.80	5.91	0.00	None	1.89	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other		0.00	0.00	64.80		None

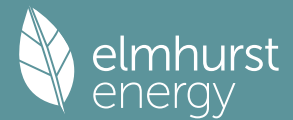
9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame		9.00	99.60

10.0 External Roofs	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area (m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof		0.10	9.00	29.56	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor		36.00

11.1 Party Floors

Summary for Input Data



Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	36.00

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	29.56

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door	Manufacturer	Door to Corridor							2.00
Glazing	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	South	1.89	
S Glazing	Glazing	External Wall 1	South	11.40	

14.0 Conservatory	None	
15.0 Draught Proofing	100	%
16.0 Draught Lobby	No	
17.0 Thermal Bridging	Calculate Bridges	

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)	Independently assessed	5.90	0.30	0.30	Yes
E3 Sill	Independently assessed	5.00	0.04	0.04	Yes
E4 Jamb	Independently assessed	17.40	0.05	0.05	Yes
E6 Intermediate floor within a dwelling	Independently assessed	11.30	0.07	0.07	Yes
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	15.60	0.07	0.07	Yes
E14 Flat roof	Independently assessed	11.30	0.08	0.08	Yes
E16 Corner (normal)	Independently assessed	9.00	0.09	0.09	No
E18 Party wall between dwellings	Independently assessed	21.60	0.04	0.04	No
E17 Corner (inverted – internal area greater than external area)	Independently assessed	3.00	-0.09	-0.09	No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	21.60	0.00	0.00	No

Y-value	0.06	W/m²K
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18.0 Pressure Testing	Yes	
Designed AP ₅₀	3.00	m³/(h.m²) @ 50 Pa
Test Method	Blower Door	

19.0 Mechanical Ventilation	
Mechanical Ventilation	
Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500167
Configuration	1
Manufacturer SFP	0.52
Duct Type	Rigid
MVHR Efficiency	92.00
Wet Rooms	1
SFP from Installer Commissioning Certificate	No
MVHR System Location	Inside heated envelope (installed exclusively)
Duct Installation Specification	Level 1

20.0 Fans, Open Fireplaces, Flues	
21.0 Fixed Cooling System	No
22.0 Lighting	
No Fixed Lighting	No

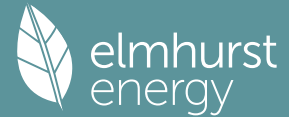
Summary for Input Data

	Name	Efficacy	Power	Capacity	Count							
	Lighting 1	100.00	5	500	10							
24.0 Main Heating 1												
	SAP table											
Percentage of Heat	100.00				%							
Fuel Type	Electricity											
SAP Code	524											
In Winter	170.00											
In Summer	170.00											
Controls SAP Code	2506											
25.0 Main Heating 2												
	None											
26.0 Heat Networks												
Space Community Heating	None											
	Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type		
Heat source 1												
Heat source 2												
Heat source 3												
Heat source 4												
Heat source 5												
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	No											
Cold Water Source	From mains											
Bath Count	1											
Supplementary Immersion	No											
Immersion Only Heating Hot Water	No											
28.3 Waste Water Heat Recovery System												
29.0 Hot Water Cylinder												
	Hot Water Cylinder											
Cylinder Stat	No											
Cylinder In Heated Space	No											
Independent Time Control	No											
Insulation Type	Measured Loss											
Cylinder Volume	170.00				L							
Loss	1.23				kWh/day							
Pipes insulation	Fully insulated primary pipework											
In Airing Cupboard	No											
31.0 Thermal Store												
	None											
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			
									0			
									Environmental Impact			
									0			

0
0

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0

Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 23	Prop Type Ref		
Property				

SAP Rating	78 C	DER	5.74	TER	13.79
Environmental	96 A	% DER < TER			58.38
CO ₂ Emissions (t/year)	0.34	DFEE	35.36	TFEE	35.77
Compliance Check	See BREL	% DFEE < TFEE			1.15
% DPER < TPER	16.57	DPER	60.78	TPER	72.86

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Top-floor flat
Which Floor	2
2.0 Number of Storeys	2
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
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:	15.30 m	37.80 m ²	3.00 m
	1st Storey:	11.00 m	26.00 m ²	3.00 m

8.0 Living Area	26.10	m ²
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Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	System Build	Other	0.15	0.00	70.80	62.40	0.00	None	8.40	Enter Gross Area
Wall to Untd	System Build	Other	0.15	0.00	8.10	6.21	0.00	None	1.89	Enter Gross Area

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	62.10		None

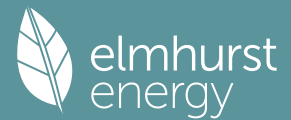
Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
Internal Wall 1	Plasterboard on timber frame	9.00	91.20

Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Flat Roof	Plasterboard, insulated flat roof	0.10	9.00	26.00	0.00	None	0.00	Enter Gross Area	0.00

Description	Storey	Construction	Area (m ²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	37.80

11.1 Party Floors

Summary for Input Data



Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	37.80

11.2 Internal Floors				
Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	26.00

12.0 Opening Types									
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door	Manufacturer	Door to Corridor							2.00
Glazing	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20

13.0 Openings					
Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	West	1.89	
N Glazing	Glazing	External Wall 1	North	8.40	

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	4.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	4.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	16.20	0.05	0.05	Yes	
E6 Intermediate floor within a dwelling	Independently assessed	11.00	0.07	0.07	Yes	
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	15.30	0.07	0.07	Yes	
E14 Flat roof	Independently assessed	11.00	0.08	0.08	Yes	
E16 Corner (normal)	Independently assessed	9.00	0.09	0.09	No	
E18 Party wall between dwellings	Independently assessed	20.70	0.05	0.05	No	
E17 Corner (inverted – internal area greater than external area)	Independently assessed	3.00	-0.09	-0.09	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	20.70	0.00	0.00	No	

Y-value	0.06	W/m²K
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18.0 Pressure Testing		Yes
Designed AP ₅₀	3.00	m³/(h.m²) @ 50 Pa
Test Method	Blower Door	

19.0 Mechanical Ventilation	
Mechanical Ventilation	
Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500167
Configuration	1
Manufacturer SFP	0.52
Duct Type	Rigid
MVHR Efficiency	92.00
Wet Rooms	1
SFP from Installer Commissioning Certificate	No
MVHR System Location	Inside heated envelope (installed exclusively)
Duct Installation Specification	Level 1

20.0 Fans, Open Fireplaces, Flues	
21.0 Fixed Cooling System	
No	
22.0 Lighting	
No	

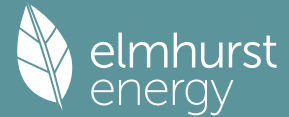
Summary for Input Data

	Name	Efficacy	Power	Capacity	Count							
	Lighting 1	100.00	5	500	10							
24.0 Main Heating 1												
	SAP table											
Percentage of Heat	100.00				%							
Fuel Type	Electricity											
SAP Code	524											
In Winter	170.00											
In Summer	170.00											
Controls SAP Code	2506											
25.0 Main Heating 2												
	None											
26.0 Heat Networks												
Space Community Heating	None											
	Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type		
Heat source 1												
Heat source 2												
Heat source 3												
Heat source 4												
Heat source 5												
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	No											
Cold Water Source	From mains											
Bath Count	1											
Supplementary Immersion	No											
Immersion Only Heating Hot Water	No											
28.3 Waste Water Heat Recovery System												
29.0 Hot Water Cylinder												
	Hot Water Cylinder											
Cylinder Stat	No											
Cylinder In Heated Space	No											
Independent Time Control	No											
Insulation Type	Measured Loss											
Cylinder Volume	170.00				L							
Loss	1.23				kWh/day							
Pipes insulation	Fully insulated primary pipework											
In Airing Cupboard	No											
31.0 Thermal Store												
	None											
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			
									0			
									Environmental Impact			
									0			

0
0

0
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Summary for Input Data



Property Reference	SAP and Water Calc		Issued on Date	05/04/2023
Assessment Reference	Unit 24	Prop Type Ref		
Property				

SAP Rating	78 C	DER	5.65	TER	13.58
Environmental	96 A	% DER < TER			58.39
CO ₂ Emissions (t/year)	0.34	DFEE	35.64	TFEE	35.67
Compliance Check	See BREL	% DFEE < TFEE			0.09
% DPER < TPER	16.39	DPER	59.86	TPER	71.60

Assessor Details	Mr. Christopher Armstrong	Assessor ID	P763-0001
Client			

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

Orientation	North
Property Tenure	ND
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, End-Terrace
Position of Flat	Top-floor flat
Which Floor	2
2.0 Number of Storeys	2
3.0 Date Built	2023
4.0 Sheltered Sides	3
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	Standard
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
	1st Storey:	13.40 m	37.60 m ²	3.00 m
		10.20 m	27.28 m ²	3.00 m

8.0 Living Area	26.00	m ²
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9.0 External Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Res	Shelter	Openings	Area Calculation Type
	External Wall 1	System Build	Other	0.15	0.00	35.40	24.00	0.00	None	11.40	Enter Gross Area
	Wall to Untd	System Build	Other	0.15	0.00	35.40	33.51	0.00	None	1.89	Enter Gross Area

9.1 Party Walls	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Area (m ²)	Shelter Res	Shelter
	Party Wall 1	Filled Cavity with Edge Sealing	Other	0.00	0.00	75.30		None

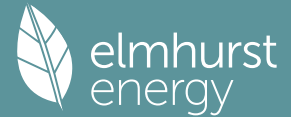
9.2 Internal Walls	Description	Construction	Kappa (kJ/m ² K)	Area (m ²)
	Internal Wall 1	Plasterboard on timber frame	9.00	100.20

10.0 External Roofs	Description	Type	Construction	U-Value (W/m ² K)	Kappa (kJ/m ² K)	Gross Area(m ²)	Nett Area (m ²)	Shelter Code	Shelter Factor	Calculation Type	Openings
	External Roof 1	External Flat Roof	Plasterboard, insulated flat roof	0.10	9.00	27.28	0.00	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings	Description	Storey	Construction	Area (m ²)
	Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	37.60

11.1 Party Floors

Summary for Input Data



Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete plank floor (screed laid on insulation), carpeted	30.00	37.60

11.2 Internal Floors				
Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	27.28

12.0 Opening Types									
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Door	Manufacturer	Door to Corridor							2.00
Glazing	Manufacturer	Window	Double Low-E Soft 0.05			0.63		0.70	1.20

13.0 Openings					
Name	Opening Type	Location	Orientation	Area (m²)	Pitch
Door to corridor	Door	Wall to Untd	West	1.89	
N Glazing	Glazing	External Wall 1	North	11.40	

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

17.0 Thermal Bridging		Calculate Bridges
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17.1 List of Bridges						
Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported	
E2 Other lintels (including other steel lintels)	Independently assessed	5.90	0.30	0.30	Yes	
E3 Sill	Independently assessed	5.00	0.04	0.04	Yes	
E4 Jamb	Independently assessed	17.40	0.04	0.04	Yes	
E6 Intermediate floor within a dwelling	Independently assessed	10.20	0.07	0.07	Yes	
E7 Party floor between dwellings (in blocks of flats)	Independently assessed	13.40	0.05	0.05	Yes	
E14 Flat roof	Independently assessed	10.20	0.08	0.08	Yes	
E16 Corner (normal)	Independently assessed	3.00	0.09	0.09	No	
E18 Party wall between dwellings	Independently assessed	25.10	0.06	0.06	No	
E17 Corner (inverted – internal area greater than external area)	Independently assessed	3.00	-0.09	-0.09	No	
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)	Independently assessed	25.10	0.00	0.00	No	

Y-value	0.06	W/m²K
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18.0 Pressure Testing		Yes
Designed AP ₅₀	3.00	m³/(h.m²) @ 50 Pa
Test Method	Blower Door	

19.0 Mechanical Ventilation	
Mechanical Ventilation	
Mechanical Ventilation System Present	Yes
Approved Installation	No
Mechanical Ventilation data Type	Database
Type	Balanced mechanical ventilation with heat recovery
MV Reference Number	500167
Configuration	1
Manufacturer SFP	0.52
Duct Type	Rigid
MVHR Efficiency	92.00
Wet Rooms	1
SFP from Installer Commissioning Certificate	No
MVHR System Location	Inside heated envelope (installed exclusively)
Duct Installation Specification	Level 1

20.0 Fans, Open Fireplaces, Flues	
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21.0 Fixed Cooling System	No
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22.0 Lighting	
No Fixed Lighting	No

Summary for Input Data

	Name	Efficacy	Power	Capacity	Count							
	Lighting 1	100.00	5	500	10							
24.0 Main Heating 1												
	SAP table											
Percentage of Heat	100.00				%							
Fuel Type	Electricity											
SAP Code	524											
In Winter	170.00											
In Summer	170.00											
Controls SAP Code	2506											
25.0 Main Heating 2												
	None											
26.0 Heat Networks												
Space Community Heating	None											
	Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type		
Heat source 1												
Heat source 2												
Heat source 3												
Heat source 4												
Heat source 5												
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	No											
Cold Water Source	From mains											
Bath Count	1											
Supplementary Immersion	No											
Immersion Only Heating Hot Water	No											
28.3 Waste Water Heat Recovery System												
29.0 Hot Water Cylinder												
	Hot Water Cylinder											
Cylinder Stat	No											
Cylinder In Heated Space	No											
Independent Time Control	No											
Insulation Type	Measured Loss											
Cylinder Volume	170.00				L							
Loss	1.23				kWh/day							
Pipes insulation	Fully insulated primary pipework											
In Airing Cupboard	No											
31.0 Thermal Store												
	None											
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			
					0				0			

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