Predicted Energy Assessment

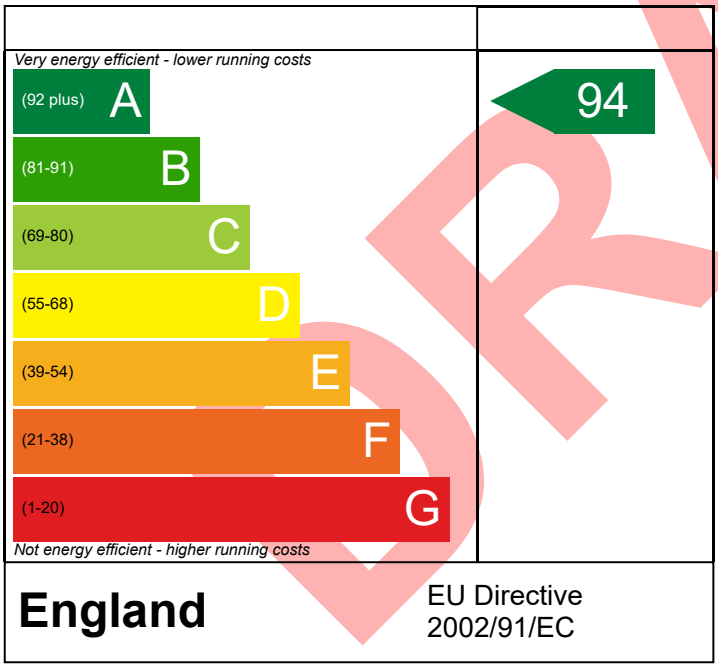
Plot 1 Whitelands, North Trade Road, Battle, East Sussex

Dwelling type:	House, Detached
Date of assessment:	17/10/2023
Produced by:	Anthony Wright
Total floor area:	192.76 m²
DRRN:	

This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

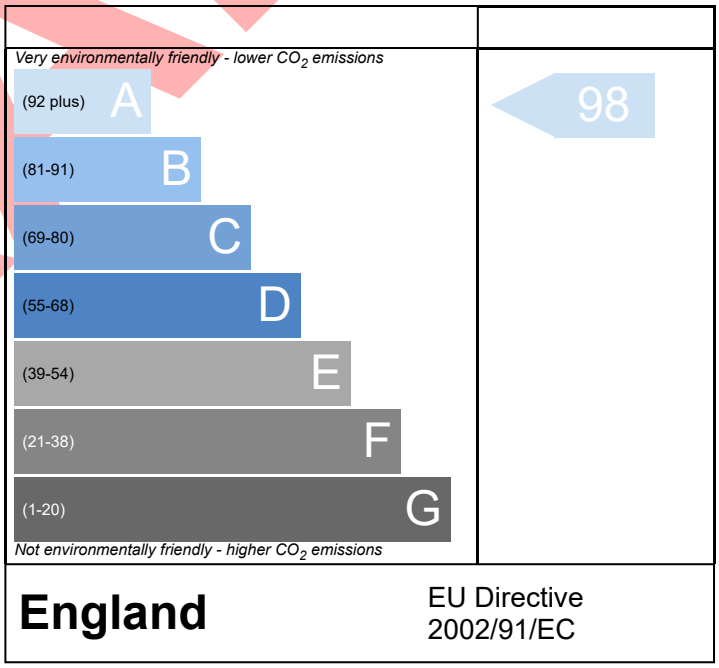
The energy performance has been assessed using the Government approved SAP 10 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO2) emissions.

Energy Efficiency Rating



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

Environmental Impact (CO_2) Rating



The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO_2) emissions. The higher the rating the less impact it has on the environment.

Summary for Input Data

Property Reference	WTT1460	**Issued on Date**	17/10/2023
Assessment Reference	WTT1460	**Prop Type Ref**	
Property	Plot 1 Whitelands, North Trade Road, Battle, East Sussex		

SAP Rating	94 A	**DER**	1.49	**TER**	7.78
Environmental	98 A	**% DER < TER**			80.85
CO_2 Emissions (t/year)	0.17	**DFEE**	37.93	**TFEE**	38.47
Compliance Check	See BREL	**% DFEE < TFEE**			1.41
% DPER < TPER	65.19	**DPER**	14.19	**TPER**	40.78

Assessor Details	Mr. Anthony Wright	**Assessor ID**	7826-0001
Client			

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

Orientation	South
Property Tenture	ND
Transaction Type	5
Terrain Type	Suburban
1.0 Property Type	House, Detached
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	Yes
Smart gas meter fitted	Yes

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	43.53 m	96.38 m²	2.40 m
1st Storey:	43.53 m	96.38 m²	2.60 m

8.0 Living Area 24.35 m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	217.65	171.34	0.00	None	46.31	Enter Gross Area

9.1 Party Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Area (m²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Double plasterboard on both sides, twin timber f rame with/without sheathing board	0.00	20.00	34.44		None
Party Wall 2	Solid Wall	Other	0.00	0.00	21.00		None

9.2 Internal Walls

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Wall 1	Plasterboard on timber frame	9.00	276.06

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Plane Roof	Plasterboard, insulated at ceiling level	0.09	9.00	96.38	96.38	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings

Description	Storey	Construction	Area (m²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	96.38

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.11	None	0.00	110.00	96.38

Summary for Input Data

elmhurst energy

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	9.00	96.38

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Entrance door	Manufacturer	Half Glazed Door	Double glazed			0.76		0.70	1.20
windows	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
front	Entrance door	External Wall 1	South	2.38	
front	windows	External Wall 1	South	8.68	
rear	windows	External Wall 1	North	9.64	
side	windows	External Wall 1	East	9.86	
side	windows	External Wall 1	West	15.74	

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	30.50	0.07	0.07	Yes
E3 Sill	Independently assessed	29.37	0.04	0.04	Yes
E4 Jamb	Independently assessed	71.95	0.06	0.06	Yes
E5 Ground floor (normal)	Independently assessed	43.53	0.17	0.17	Yes

Y-value	0.00	W/m²K

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

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

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	80.00	5	400	30

24.0 Main Heating 1	SAP table	
Percentage of Heat	100.00	%
Fuel Type	Electricity	
SAP Code	214	
In Winter	170.00	
In Summer	170.00	
Controls SAP Code	2207	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators and Underfloor	
Underfloor Heating	Yes - Pipes in Wood	
Flow Temperature	Enter value	
Flow Temperature Value	35.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	

Summary for Input Data

elmhurst energy

	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										

27.0 Secondary Heating

Secondary Heating	SAP table	
SAP Code	633	
SHS efficiency	60.00	%
HETAS Approved System	Yes	

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
Waste Water Heat Recovery Instantaneous System 1	No
Waste Water Heat Recovery Instantaneous System 2	No
Waste Water Heat Recovery Storage System	No
Solar Panel	No
Water use <= 125 litres/person/day	Yes
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	None
In Airing Cupboard	No

32.0 Photovoltaic Unit	One Dwelling
Export Capable Meter?	Yes
Connected To Dwelling	Yes
Diverter	Yes
Battery Capacity [kWh]	12.00

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

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
	£4,000 - £6,000	£69	A 95	A 99
			0	0
			0	0

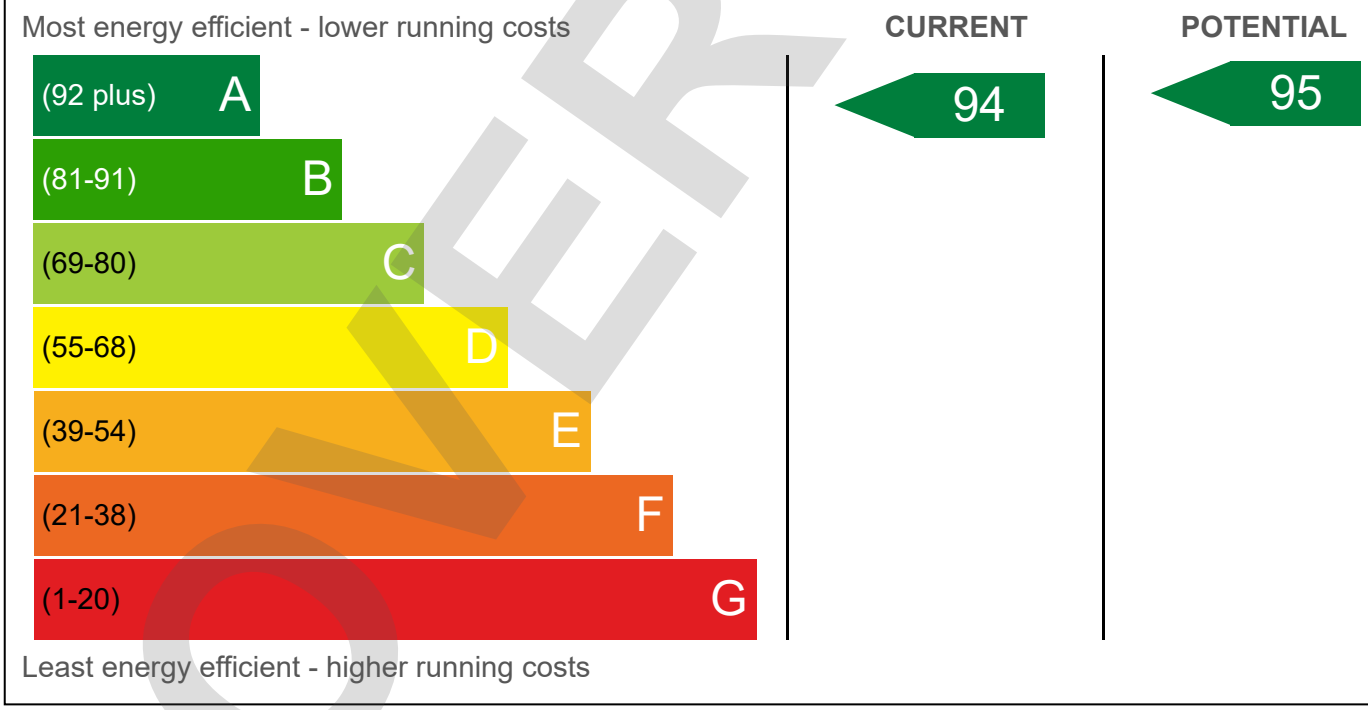
Overview Report

Dwelling Address	Plot 1 Whitelands, North Trade Road, Battle, East Sussex
Report Date	17/10/2023
Property Type	House, Detached
Floor Area [m^2]	193

This document is not an Energy Performance Certificate (EPC) as required by the Energy Performance of Buildings Regulations

Energy Rating

The current energy rating represents the overall energy efficiency of the dwelling. The potential energy rating is the overall energy rating of the dwelling after all of the recommend measures provided on the next page have been installed. A higher score represents a more energy efficient dwelling with lower fuel bills.



Overview Report

Breakdown of property's energy performance

Each feature is assessed as one of the following:

Very Poor | Poor | Average | Good | Very Good

Feature	Description	Energy Performance
Walls	Average thermal transmittance 0.18 W/m²K	Very Good
Roof	Average thermal transmittance 0.09 W/m²K	Very Good
Floor	Average thermal transmittance 0.11 W/m²K	Very Good
Windows	High performance glazing	Very Good
Main heating	Air source heat pump, radiators and underfloor, electric	Good
Main heating controls	Time and temperature zone control	Very Good
Secondary heating	Room heaters, wood logs	
Hot water	From main system	Average
Lighting	Good lighting efficiency	Good
Air tightness	Air permeability [AP50] = 5.0 m³/h.m² (assumed)	Good

Primary Energy use

The primary energy use for this property per year is 8 kilowatt hour (kWh) per square metre

Estimated CO_2 emissions of the dwelling

The estimated CO rating provides an indication of the dwelling's impact on the environment in terms of carbon dioxide emissions; the higher the rating the less impact it has on the environment.

The estimated CO emissions for this dwellings is: **0.2** per year

Overview Report

With the recommended measures the potential CO emissions could be: **0.0** per year

Recommendations

The recommended measures provided below will help to improve the energy efficiency of the dwelling.
To reach the dwelling's potential energy rating all of the recommended measures shown below would need to be installed.
Having these measures installed individually or in any other order may give a different result when compared with the cumulative potential rating.

Recommended measure	Typical Yearly Saving	Potential Rating after measure installed	Cumulative savings (per year)	Cumulative Potential Rating
Solar water heating	£69	1	£69	A 95
Photovoltaic		-95	£175	G 0

Estimated energy use and potential savings

Estimated energy cost for this property over a year

£175

Over a year you could save

£69

The estimated cost and savings show how much the average household would spend in this property for heating, lighting and hot water. It is not based on how energy is used by the people living at the property.

Contacting the assessor and the accreditation scheme

Overview Report

Assessor contact details	
Assessor name	Mr. Anthony Wright
Assessor's accreditation number	
Email Address	

Accreditation scheme contact details	
Accreditation scheme	
Telephone	
Email Address	

Assessment details	
Related party disclosure	
Date of assessment	11/10/2023
Date of certificate	11/10/2023
Type of assessment	SAP, new dwelling