PREDICTED ENERGY ASSESSMENT



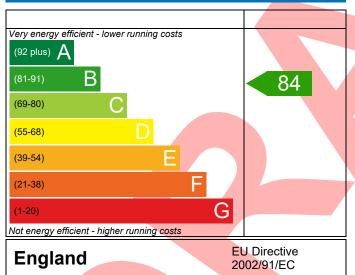
L194, 3 Bed, K. WC. B. ES Dwelling type: House, Semi-Detached

Date of assessment: 12/01/2023
Produced by: Silvio Junges
Total floor area: 80.36 m²

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.

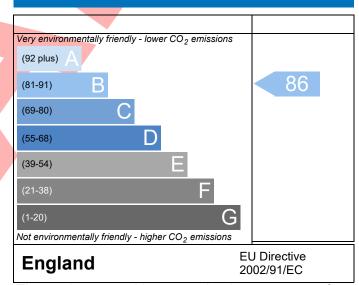
The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.

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 (CO₂) Rating



The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating the less impact it has on the environment.

This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.



BUILDING REGULATION COMPLIANCE Calculation Type: New Build (As Designed)



Property Reference 4907-P637-6196	5-L194				Issued on Date	12/01/2023		
Assessment L194								
Reference								
Property L194, 3 Bed, K, V	NC, B, ES							
SAP Rating		84 B	DER	17.94	TER	18.16		
Environmental		86 B	% DER <ter< td=""><td></td><td>1.18</td><td></td></ter<>		1.18			
CO₂ Emissions (t/year)		1.19	DFEE	45.56	TFEE	50.20		
General Requirements Compliance		Pass	% DFEE <tfee< td=""><td></td><td>9.25</td><td></td></tfee<>		9.25			
Assessor Details Miss Maja Stanisz, N		, Tel: 01392	581 875,	,	Assessor ID	P637-0001		
	aja.stanisz@aessc.co.uk							
Client								
SUMARY FOR INPUT DATA FOR New Bui	ld (As Desig	ned)						
Criterion 1 – Achieving the TER and TFEE	rate							
1a TER and DER								
Fuel for main heating		Mains ga	as					
Fuel factor 1.00 (mains gas)								
Target Carbon Dioxide Emission Rate	18.16 kgCO ₂ /m ²							
Dwelling Carbon Dioxide Emission Rat	e (DER)	17.94	Pass					
		-0.22 (-1	.2%)		kgCO ₂ /m ²			
1b TFEE and DFEE		F0 20			134/1 / 2/			
Target Fabric Energy Efficiency (TFEE)		50.20 kWh/m²/yr						
Dwelling Fabric Energy Efficiency (DFE	E)	45.56 -4.6 (-9.2	20/1		kWh/m²/yr kWh/m²/yr			
Criterion 2 – Limits on design flexibility		-4.0 (-3.2	276)		KVVII/III / yI	Pass		
Limiting Fabric Standards								
2 Fabric U-values								
Element	Avorag			ighest				
External wall	Average	ax. 0.30)		.25 (max. 0.7	0)	Pass		
Party wall	•	ax. 0.20)	-	.25 (IIIax. 0.7	0)	Pass		
Floor	•	ax. 0.25)	0	.18 (max. 0.7	Pass			
Roof	,	ax. 0.20)		.17 (max. 0.3	Pass			
Openings		ax. 2.00)		.40 (max. 3.3	Pass			
2a Thermal bridging		•						
Thermal bridging calculated from I	linear therm	al transmitt	cances for each ju	nction				
3 Air permeability			,					
Air permeability at 50 pascals		5.01 (de	sign value)		m ³ /(h.m ²) @ 50 P	a		
Maximum		10.0			m ³ /(h.m ²) @ 50 P	-		
Limiting System Efficiencies								

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4 Heating efficiency

BUILDING REGULATION COMPLIANCE Calculation Type: New Build (As Designed)



Main heating system	Boiler system with radiators or underfloor - Mains gas	Pass
	Data from database	
	Ideal LOGIC COMBI ESP1 35	
	Combi boiler	
	Efficiency: 89.6% SEDBUK2009 Minimum: 88.0%	
Connecting system		
Secondary heating system	None	
5 Cylinder insulation		
Hot water storage	No cylinder	
<u>6 Controls</u>		
Space heating controls	Programmer, room thermostat and TRVs	Pass
Hot water controls	No cylinder	
Boiler interlock	Yes	Pass
7 Low energy lights		
Percentage of fixed lights with low-energy	100 %	
fittings		
Minimum	75 %	Pass
8 Mechanical ventilation		
Not applicable		
Criterion 3 – Limiting the effects of heat gains in su	mmer	
9 Summertime temperature		
Overheating risk (Thames Valley)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing South East	6.99 m², No overhang	
Windows facing North West	4.53 m ² , No overhang	
Air change rate	4.00 ach	
Blinds/curtains	None	
Criterion 4 - Building performance consistent with	DER and DFEE rate	
Party Walls		
Туре	U-value	
Filled Cavity with Edge Sealing	0.00 W/m ² K	Pass
Air permeability and pressure testing		
3 Air permeability		
Air permeability at 50 pascals	5.01 (design value) m ³ /(h.m ²) @ 50 Pa	
Maximum	10.0 m ³ /(h.m ²) @ 50 Pa	Pass
10 Key features		
Party wall U-value	0.00 W/m ² K	
Door U-value	0.90 W/m²K	
Window U-value	0.90 W/m²K	
Thermal bridging y-value	0.036 W/m²K	

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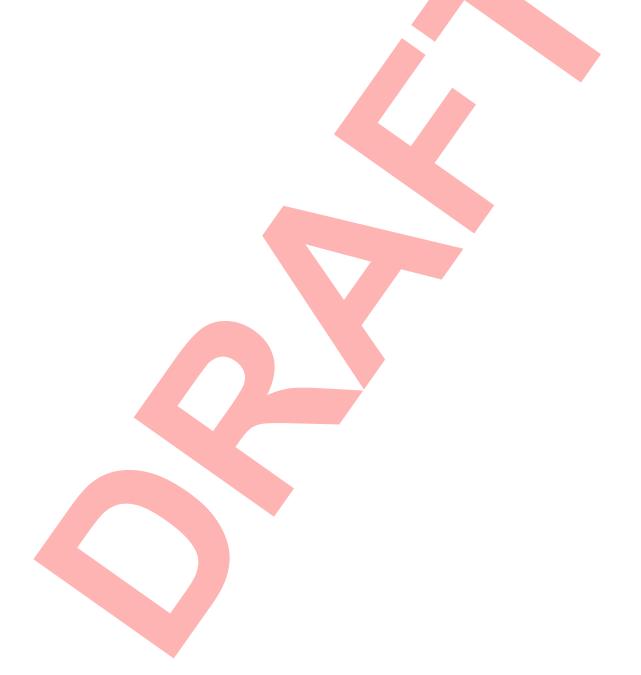


Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r19

RECOMMENDATIONS



	Typical cost	Typical savings per year	Energy efficiency	Environmental impact	Result
Low energy lights			0	0	Already installed
Solar water heating	£4,000 - £6,000	£26	B 85	B 88	Recommended
Photovoltaic	£3,500 - £5,500	£373	A 95	A 98	Recommended
Wind turbine			0	0	Not applicable
Totals	£7,500 - £11,500	£398	A 95	A 98	



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