PREDICTED ENERGY ASSESSMENT



Plot 25, Granby Drive, Buxton,

Derbyshire, SK17 7TS Dwelling type: House, End-Terrace

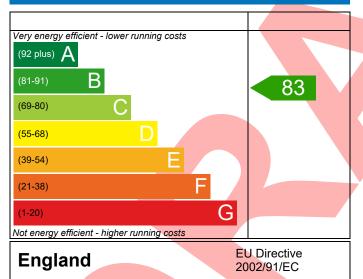
Date of assessment: 30/08/2019
Produced by: Eddie Bakewell

Total floor area: 76.42 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.

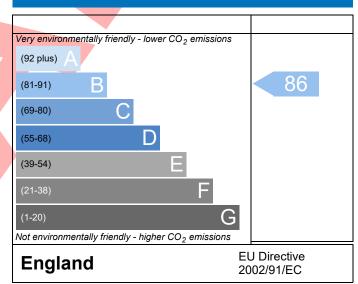
The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.

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)



Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 1.00 (mains gas) 19.37 19.37 18.41 19.35 19.35 19.36 19.37	Property Reference 003061				Issued on Date	30/08/2019	
Property	Assessment Plot 25		Pr	op Type Ref	Plot 25		
SAP Rating	Reference		·				
Environmental	Property Plot 25, Granby Drive, But	xton, Derbysh	ire, SK17 7TS				
CO; Emissions (t/year) General Requirements Compliance Pass MFEE 48.08 TFEE 56.04	SAP Rating	83 B		18.41	TER	19.37	
Assessor Details Mr. Eddie Bakewell, Eddie Bakewell, Tel: 01509 215594 eddie@bluefoxqs.co.uk		86 B	% DER <ter< td=""><td></td><td>4.95</td><td></td></ter<>		4.95		
Assessor Details Mr. Eddie Bakewell, Eddie Bakewell, Tel: 01509 215594, eddie@bluefoxgs.co.uk Client SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 – Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (DER) Dwelling Carbon Dioxide Emission Rate (DER) Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) Limiting Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.23 (max. 0.30) 0.23 (max. 0.70) Pass Pass Floor 0.16 (max. 0.25) 0.13 (max. 0.35) 0.26 (max. 0.30) 0.27 (max. 0.35) 0.28 (max. 0.30) 0.29 (max. 0.35) 0.29 (max. 0.35) 0.29 (max. 0.35) 0.29 (max. 0.30) 0.29 (max. 0.35) 0.30 (max. 0.		1.47		48.08	TFEE	56.04	
Criterion 2 - Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Fuel or Mail Average Fuel for Mail Average Fuel for Mail Average Fuel for Mail Average Fuel for Mail Average Fuel factor Fuel factor Average Fuel factor Fuel factor Fuel factor Fuel for mail heating Fuel factor Fuel for mail Fuel factor Fuel for mail Fuel factor Fuel for mail Fuel factor Fuel for mail Fuel for mail Fuel for mail Fuel for mail Fuel factor Fuel f	General Requirements Compliance	Pass	% DFEE <tfee< th=""><th></th><th>14.21</th><th></th></tfee<>		14.21		
SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 – Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 18.41 kgCO2/m² Pass Po.96 (-5.0%) kgCO2/m² Pass 1b TFEE and DFEE Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) Dwelling Fabric Energy Efficiency (DFEE) Limiting Fabric Standards 2 Fabric U-values Element External wall D.23 (max. 0.30) Pass Party wall D.00 (max. 0.29) Pass Roof D.13 (max. 0.25) D.16 (max. 0.70) Pass Roof D.13 (max. 0.20) D.13 (max. 0.35) Pass 2 Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	•	kewell, Tel: 01	1509 215594,		Assessor ID	7044-0001	
Criterion 1 – Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 19.37 Dwelling Carbon Dioxide Emission Rate (DER) 18.41 0.96 (-5.0%) 1b TFEE and DFEE Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) 48.08 Criterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.23 (max. 0.30) 0.23 (max. 0.70) Pass Party wall 0.00 (max. 0.29) - Pass Roof 0.13 (max. 0.25) 0.16 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass 2 Thermal bridging Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	Client						
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Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) Is.41 -0.96 (-5.0%) Is.41 Is.46 Is.40 Is.	Criterion 1 – Achieving the TER and TFEE rate						
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Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 19.37 -0.96 (-5.0%)	Fuel for main heating	Mains ga	ns				
Dwelling Carbon Dioxide Emission Rate (DER) 18.41	Fuel factor	1.00 (ma	nins gas)				
Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) Target Fabric Energy Efficiency (DFEE) Dwelling Fabric Energy Efficiency (DFEE) 48.08 -7.9 (-14.1%) Criterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.23 (max. 0.30) 0.23 (max. 0.70) Pass Party wall 0.00 (max. 0.20) - Pass Floor 0.16 (max. 0.25) 0.16 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.44 (max. 2.00) 1.50 (max. 3.30) Pass 2a Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	Target Carbon Dioxide Emission Rate (TER)	19.37			kgCO ₂ /m ²		
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Criterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.23 (max. 0.30) 0.23 (max. 0.70) Pass Party wall 0.00 (max. 0.20) - Pass Floor 0.16 (max. 0.25) 0.16 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.44 (max. 2.00) 1.50 (max. 3.30) Pass 2a Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	Dwelling Fabric Energy Efficiency (DFEE)	48.08	7		kWh/m²/yr		
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Party wall O.00 (max. 0.20) Floor O.16 (max. 0.25) O.16 (max. 0.70) Pass Roof O.13 (max. 0.20) Openings 1.44 (max. 2.00) 1.50 (max. 3.30) Pass Pass Air permeability	Element Avera	age	H	ighest			
Floor 0.16 (max. 0.25) 0.16 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.44 (max. 2.00) 1.50 (max. 3.30) Pass 2a Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	External wall 0.23	(max. 0.30)	0.	23 (max. 0.70	0)	Pass	
Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Openings 1.44 (max. 2.00) 1.50 (max. 3.30) Pass 2a Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	Party wall 0.00	(max. 0.20)	-			Pass	
Openings 1.44 (max. 2.00) 1.50 (max. 3.30) Pass Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	Floor 0.16	(max. 0.25)	0.	16 (max. 0.70	0)	Pass	
2a Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	Roof 0.13	(max. 0.20)	0.	13 (max. 0.3	5)	Pass	
Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability	Openings 1.44	(max. 2.00)	1.	50 (max. 3.30	0)	Pass	
3 Air permeability	2a Thermal bridging						
	Thermal bridging calculated from linear the	rmal transmit	ances for each jur	nction			
Air permeability at 50 pascals 5.00 (design value) m³/(h.m²) @ 50 Pa	3 Air permeability						
	Air permeability at 50 pascals	5.00 (design value)			m³/(h.m²) @ 50 Pa		
Maximum m³/(h.m²) @ 50 Pa Pass	Maximum	10.0			m³/(h.m²) @ 50 Pa	a Pass	
Limiting System Efficiencies	Limiting System Efficiencies						
4 Heating efficiency	4 Heating officiency						

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Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.10r08

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



Main heating system	Boiler system with radiators or underfloor - Mains gas		
	Data from database		
	Vaillant ecoFIT sustain 825 VUW 256/6-3 (H-GB)		
	Combi boiler		
	Efficiency: 89.3% SEDBUK2009 Minimum: 88.0%		
Secondary heating system	None		
	Notie		
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 (Midlands)	Not significant	Pass	
Based on:			
Overshading	Average		
Windows facing North East	6.48 m², No overhang		
Windows facing South East	2.14 m², No overhang		
Windows facing North West	4.34 m², No overhang		
Air change rate	8.00 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	5.00 (design value) m ³ /(h.m ²) @ 50 P	а	
Maximum	10.0 m ³ /(h.m ²) @ 50 P		
10 Key features			
Party wall U-value	0.00 W/m²K		
Door U-value	1.10 W/m²K		

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