PREDICTED ENERGY ASSESSMENT



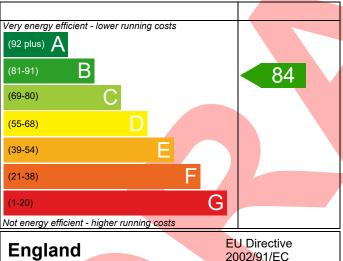
Plot 24, Land off Hawks Road, Dwelling type: House, Semi-Detached

Welton, Date of assessment: 19/07/2022 Lincoln, Produced by: Jake Eaton LN2 3BS Total floor area: 81.47 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.

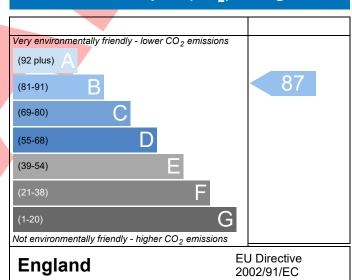
The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.

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)



Assessment Reference	Property Reference LN2 3BS P	lot 24				Issued on Date	19/07/2022
Property	Assessment 001						
SAP Rating							
State	Property Plot 24, La	and off Hawks Ro	ad, Welton,	Lincoln, LN2 3BS			
Cotenissions (t/year) General Requirements Compliance Pass	SAP Rating		84 B	DER	17.48	TER	18.48
Assessor Details Mr. Jake Eaton, Jake Eaton, Tel: 01400283471, jake@aeratech.co.uk Assessor ID P711-0001 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 Mains gas Fuel factor 1.00 (mains gas) Target Carbon Dioxide Emission Rate (TER) 18.48 kgC0 ₂ /m² Dwelling Carbon Dioxide Emission Rate (DER) 17.48 kgC0 ₂ /m² 1b TFEE and DEE Target Fabric Energy Efficiency (TFEE) 52.67 kWh/m²/yr Dwelling Fabric Energy Efficiency (OFEE) 44.85 kWh/m²/yr Dwelling Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.19 (max. 0.30) 0.19 (max. 0.70) Pass Party wall 0.00 (max. 0.20) - 4 (max. 0.70) Pass Roof 0.11 (max. 0.25) 0.14 (max. 0.70) Pass Roof 0.11 (max. 0.20) 1.40 (max. 0.35) Pass Characterial bridging Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability at 50 pascals 7.00 (design value) m³/(h.m²) @ 50 Pa Pass Imitting System Efficiencies	Environmental		87 B	% DER <ter< td=""><td></td><td>5.42</td><td></td></ter<>		5.42	
Assessor Details 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 (TER) Dwelling Carbon Dioxide Emission Rate (DER) Dwelling Carbon Dioxide Emission Rate (DER) Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) Target Fabric Energy Efficiency (DFEE) Dwelling Fabric Standards 2 Fabric U-values Element External wall D.19 (max. 0.30) Pass Pass Poor Pass Poor Poor Pass Pass Pass Poor Pass Pass Pass Poor Pass Pass Pass Pass Pass Pass Pass Pas			1.26	DFEE	44.86	TFEE	52.67
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Limiting System Efficiencies							
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This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.



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

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 835 VUW 356/6-3 (H-GB) Combi boiler Efficiency: 89.3% SEDBUK2009 Minimum: 88.0%	Pass
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	i
Boiler interlock	Yes	Pass
7 Low energy lights		
Percentage of fixed lights with low-energy fittings	100 %	
Minimum	75 %	Pass
8 Mechanical ventilation		
Not applicable		
Criterion 3 – Limiting the effects of heat gains in sur	mmer	
9 Summertime temperature		
Overheating risk (East Pennines)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing North	4.54 m², No overhang	
Windows facing South	6.91 m², No overhang	
Windows facing West	1.45 m², No overhang	=
Air change rate	2.50 ach	_
Blinds/curtains	Light-coloured curtain or roller blind, closed 50% of daylight hours	
Criterion 4 – Building performance consistent with		
Party Walls		
Туре	U-value	
Filled Cavity with Edge Sealing	0.00 W/m²K	Pass
Air permeability and pressure testing		
3 Air permeability		
Air permeability at 50 pascals	7.00 (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/m²K	
Roof U-value	0.11 W/m²K	
Roof U-value	0.12 W/m²K	

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