PREDICTED ENERGY ASSESSMENT

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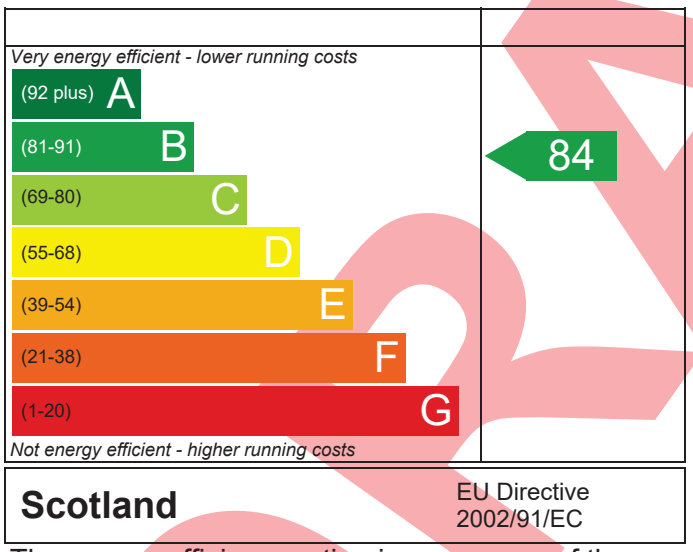
Clachnaben, Plot 77, Phase 4 A,
Tarland Road,
Aboyne

Dwelling type:	House, Detached
Date of assessment:	11/03/2024
Produced by:	Northern Energy
Total floor area:	186.68 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 (CO_2) emissions.

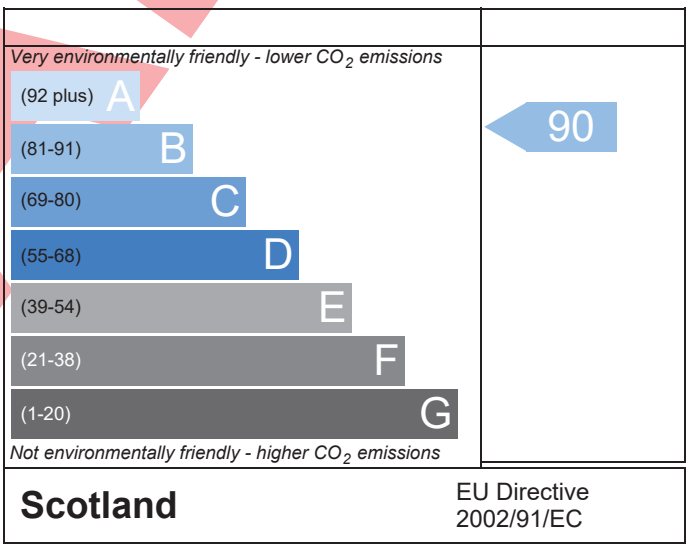
Energy Efficiency Rating



Scotland — EU Directive 2002/91/EC

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



Scotland — EU Directive 2002/91/EC

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.

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

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Property Reference	ajc 4A 77 clachnaben	**Issued on Date**	11/03/2024
Assessment Reference	tar road 77	**Prop Type Ref**	
Property	Clachnaben, Plot 77, Phase 4 A, Tarland Road, Aboyne		

SAP Rating	84 B	**DER**	10.06	**TER**	11.23
Environmental	90 B	**% DER<TER**	10.42		
CO_2 Emissions (t/year)	2.05	**FEE**	44.79	**TFEE**	N/A
General Requirements Compliance	Pass	**% DFEE<TFEE**	N/A		

Assessor Details	Mr. William MacDougall, Northern Energy, Tel: 019755 81400, n.energy@btinternet.com	**Assessor ID**	1910-0001
Client			

SUMARY FOR INPUT DATA FOR New Build (As Designed)

6.1 Carbon Dioxide Emissions

1a TER and DER

Fuel for main heating	Bulk LPG		
Fuel package for TER	LPG		
Target Carbon Dioxide Emission Rate (TER)	11.23	$kgCO_2/m^2$	
Dwelling Carbon Dioxide Emission Rate (DER)	10.06	$kgCO_2/m^2$	Pass
	-1.17 (-10.4%)	$kgCO_2/m^2$	

6.2 Building insulation envelope

2 Fabric U-values

Element	Average	Highest	
External wall	0.16 (max. 0.22)	0.24 (max. 0.70)	Pass
Floor	0.13 (max. 0.18)	0.15 (max. 0.70)	Pass
Roof	0.10 (max. 0.15)	0.15 (max. 0.35)	Pass
Openings	1.40 (max. 1.60)	1.40 (max. 3.30)	Pass

2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

3 Air permeability

Air permeability at 50 pascals	4.00 (design value)	

6.3 Heating System

4 Heating efficiency

Main heating system	Boiler system with radiators or underfloor - Bulk LPG Data from database Baxi ASSURE 18 SYSTEM LPG Efficiency: 90.2% SEDBUK2009 Minimum: 88.0%	Pass
Secondary heating system	None	

6 Controls

Space heating controls	Time and temperature zone control	Pass
Hot water controls	Cylinderstat	Pass
	Independent timer for DHW	Pass
Boiler interlock	Yes	Pass

6.4 Insulation of pipes, ducts and vessels

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5 Cylinder insulation

Hot water storage	Measured cylinder loss: 2.22 kWh/day Permitted by DBSCG 2.56	Pass
Primary pipework insulated	Yes	Pass

6.5 Artificial and display lighting

7 Low energy lights

Percentage of fixed lights with low-energy fittings	100	%	
Minimum	75	%	Pass

6.6 Mechanical ventilation and air conditioning

8 Mechanical ventilation

Continuous extract system (decentralised)		
Specific fan power	0.1600 0.2000	
Maximum	0.7	Pass

9 Summertime temperature

Overheating risk (North East Scotland)	Not significant	Pass

Based on:

Overshading	Average
Windows facing North	11.54 m², No overhang
Windows facing East	0.72 m², No overhang
Windows facing South	8.20 m², No overhang
Windows facing West	2.16 m², No overhang
Air change rate	4.00 ach
Blinds/curtains	None

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RECOMMENDATIONS

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	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	£93	B 86	A 92	Recommended
Photovoltaic			0	0	Already installed
Wind turbine			0	0	Not applicable
Totals	**£4,000 - £6,000**	**£93**	**B 86**	**A 92**	

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