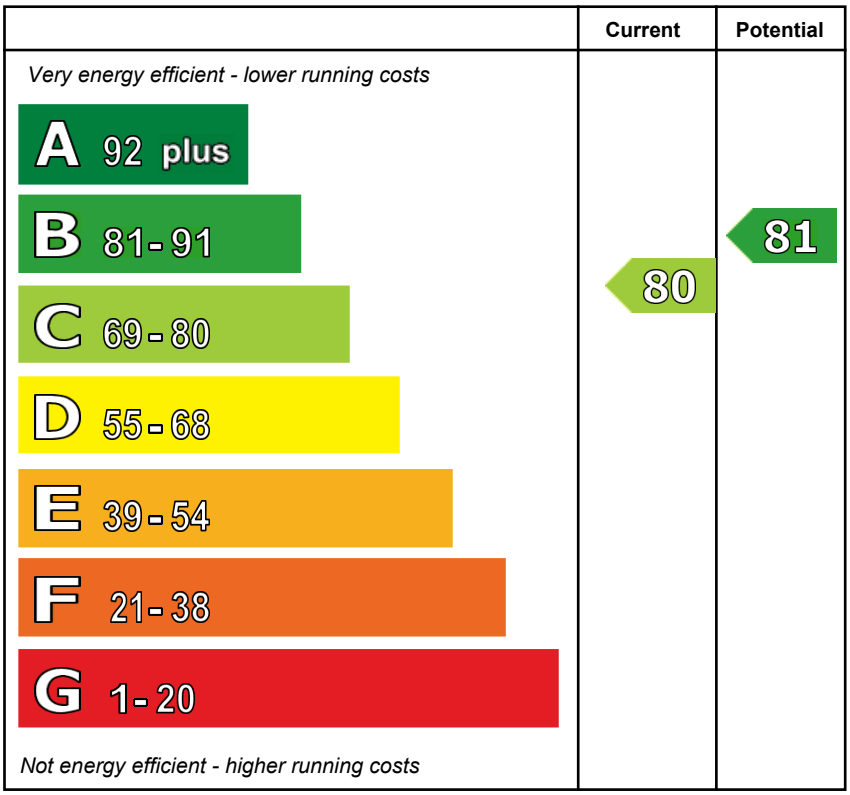
Energy Performance Certificate

Northern Ireland

81 Bay Road,
Carnlough,
BALLYMENA,
BT44 0HJ

Date of assessment:	23 October 2009
Date of certificate:	27 October 2009
Reference number:	9561-0230-6569-4677-5026
Type of assessment:	SAP, new dwelling
Accreditation scheme:	Elmhurst Energy Systems Ltd
Assessor's name:	Mr. Leo Carr
Assessor's accreditation number:	EES/006840
Employer/trading name:	Leo Carr
Employer/trading address:	50 Drumherney Road, Keady company, Armagh, BT60 3AT
Related party disclosure:	No related party

Energy Efficiency Rating



Technical information

Main heating type and fuel:	Boiler and radiators, oil
Total floor area:	95 m²
Approximate energy use:	139 kWh/m² per year
Approximate CO_2 emissions:	29 kg/m² per year
Dwelling type:	Detached house

Benchmarks

Typical new build	78
Average for Northern Ireland	50

The approximate energy use and CO2 emissions are per square metre of floor area based on fuel costs for the heating, ventilation, hot water and lighting systems. The rating can be compared to two benchmarks: one that would be attained by a typical new dwelling with oil heating constructed to the minimum standards of the building regulations current at the date of the assessment and the second is the average for the housing stock in Northern Ireland.

Estimated energy use, carbon dioxide (CO_2) emissions and fuel costs of this home

	Current	Potential
Energy use	139 kWh/m² per year	133 kWh/m² per year
Carbon dioxide emissions	2.7 tonnes per year	2.7 tonnes per year
Lighting	£73 per year	£47 per year
Heating	£252 per year	£256 per year
Hot water	£139 per year	£139 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

To see how this home can achieve its potential rating please see the recommended measures.

About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, to a scheme authorised by the Government. This certificate was produced using the SAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections) Regulations (Northern Ireland) 2008. A copy of the certificate has been lodged on a national register.

If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are on the preceding page. You can get contact details of the accreditation scheme from their website at www.elmhurstenergy.co.uk together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

About the building's performance ratings

The ratings provide a measure of the building's overall energy efficiency and its environmental impact, calculated in accordance with a national methodology that takes into account factors such as insulation, heating and hot water systems, ventilation and fuels used. The average Energy Efficiency Rating for a dwelling in Northern Ireland is band E (rating 50).

Not all buildings are used in the same way, so energy ratings use 'standard occupancy' assumptions which may be different from the specific way you use your home. Different methods of calculation are used for homes and for other buildings. Details can be found at www.communities.gov.uk/epbd

Buildings that are more energy efficient use less energy, save money and help protect the environment. A building with a rating of 100 would cost almost nothing to heat and light and would cause almost no carbon emissions. The potential ratings describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

energy saving recommended
Certification mark

Remember to look for the energy saving recommended logo when buying energy-efficient products. It's a quick and easy way to identify the most energy-efficient products on the market.

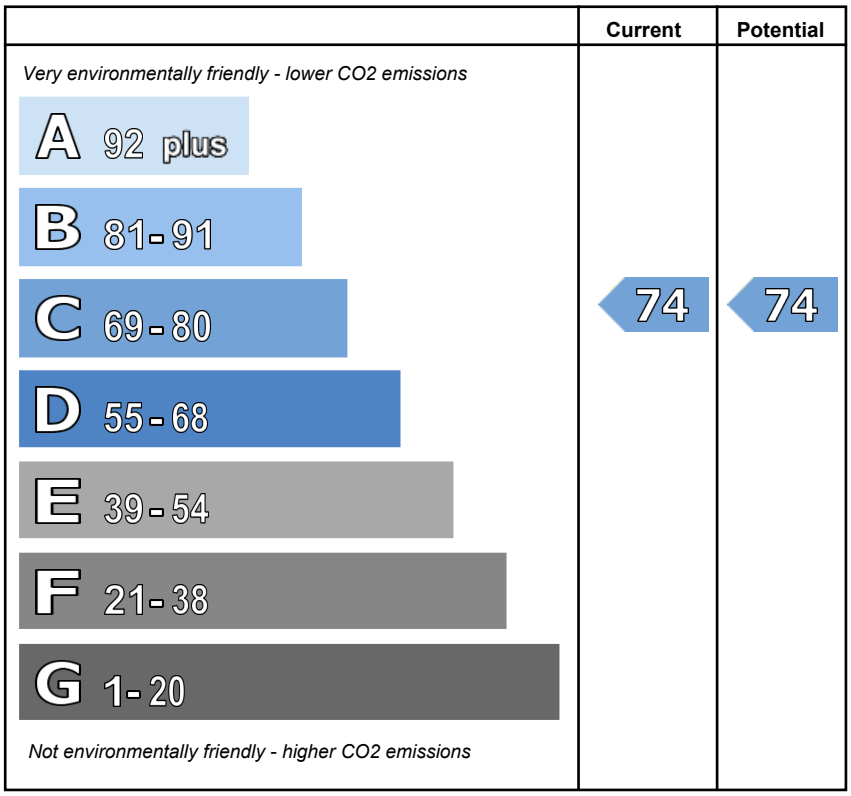
For advice on how to take action and to find out about offers available to help make your home more energy efficient, call **0800 512 012** or visit **www.energysavingtrust.org.uk**

About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The way we use energy in buildings causes emissions of carbon. The energy we use for heating, lighting and power in homes produces over a quarter of the UK' s carbon dioxide emissions and other buildings produce a further one-sixth.

The average household causes about 6 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. You could reduce emissions even more by switching to renewable energy sources. In addition there are many simple everyday measures that will save money, improve comfort and reduce the impact on the environment. Some examples are given at the end of this report.

Environmental Impact (CO2) Rating



Visit the Government's website at www.communities.gov.uk/epbd to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

Recommended measures to improve this home's energy performance

81 Bay Road,
Carnlough,
BALLYMENA, BT44 0HJ

Date of certificate: 27 October 2009
Reference number: 9561-0230-6569-4677-5026

Summary of this home's energy performance related features

The following is an assessment of the key individual elements that have an impact on this home's performance rating. Each element is assessed against the following scale: Compliant / Average / Good / Very good.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.26 W/m²K	Very good	Very good
Roof	Average thermal transmittance 0.21 W/m²K	Good	Good
Floor	Average thermal transmittance 0.18 W/m²K	Very good	Very good
Windows	High performance glazing	Very good	Very good
Main heating	Boiler and radiators, oil	Good	Good
Main heating controls	Time and temperature zone control	Good	Good
Secondary heating	None	-	-
Hot water	From main system	Good	Good
Lighting	Low energy lighting in 46% of fixed outlets	Good	Good
Air tightness	Air permeability 5.6 m³/h.m² (as tested)	Good	Good
Current energy efficiency rating		C 80	
Current environmental impact (CO_2) rating			C 74

Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.

Low and zero carbon energy sources

None

Recommendations

The measures below are cost effective. The performance ratings after improvement listed below are cumulative, that is they assume the improvements have been installed in the order that they appear in the table.

Lower cost measures (up to £500)	Typical savings per year	Performance ratings after improvement	
		Energy efficiency	Environmental impact
1 Low energy lighting for all fixed outlets	£21	B 81	C 74
Total	**£21**		
Potential energy efficiency rating		B 81	
Potential environmental impact (CO_2) rating			C 74

Further measures to achieve even higher standards

The further measures listed below should be considered in addition to those already specified if aiming for the highest possible standards for this home. Some of these measures may be cost-effective when other building work is being carried out such as an alteration, extension or repair. Also they may become cost-effective in the future depending on changes in technology costs and fuel prices. However you should check the conditions in any covenants, planning conditions, warranties or sale contracts before undertaking any of these measures.

2 Solar water heating	£38	B 83	C 77
3 Solar photovoltaic panels, 2.5 kWp	£167	A 92	B 86
Enhanced energy efficiency rating		A 92	
Enhanced environmental impact (CO_2) rating			B 86

Improvements to the energy efficiency and environmental impact ratings will usually be in step with each other. However, they can sometimes diverge because reduced energy costs are not always accompanied by a reduction in carbon dioxide (CO_2) emissions.

About the cost effective measures to improve this home's performance ratings

Lower cost measures (typically up to £500 each)

These measures are relatively inexpensive to install and are worth tackling first. Some of them may be installed as DIY projects. DIY is not always straightforward, and sometimes there are health and safety risks, so take advice before carrying out DIY improvements.

1 Low energy lighting

Replacement of traditional light bulbs with energy saving recommended ones will reduce lighting costs over the lifetime of the bulb, and they last up to 12 times longer than ordinary light bulbs. Also consider selecting low energy light fittings when redecorating; contact the Lighting Association for your nearest stockist of Domestic Energy Efficient Lighting Scheme fittings.

About the further measures to achieve even higher standards

Further measures that could deliver even higher standards for this home. You should check the conditions in any covenants, planning conditions, warranties or sale contracts before undertaking any of these measures.

Building regulations apply to most measures. Building regulations approval and planning consent may be required for some measures. If you are a tenant, before undertaking any work you should check the terms of your lease and obtain approval from your landlord if the lease either requires it, or makes no express provision for such work.

2 Solar water heating

A solar water heating panel, usually fixed to the roof, uses the sun to pre-heat the hot water supply. This will significantly reduce the demand on the heating system to provide hot water and hence save fuel and money. The Solar Trade Association has up-to-date information on local installers and any grant that may be available or contact the Energy Saving Trust.

3 Solar photovoltaic (PV) panels

A solar PV system is one which converts light directly into electricity via panels placed on the roof with no waste and no emissions. This electricity is used throughout the home in the same way as the electricity purchased from an energy supplier. The British Photovoltaic Association has up-to-date information on local installers who are qualified electricians and on any grant that may be available. It is best to obtain advice from a qualified electrician. Ask the electrician to explain the options.

What can I do today?

Actions that will save money and reduce the impact of your home on the environment include:

- Ensure that you understand the dwelling and how its energy systems are intended to work so as to obtain the maximum benefit in terms of reducing energy use and CO2 emissions. The papers you are given by the builder and the warranty provider will help you in this.
- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use the timer to ensure you only heat the building when necessary.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- Turn off lights when not needed and do not leave appliances on standby. Remember not to leave chargers (e.g. for mobile phones) turned on when you are not using them.
- Close your curtains at night to reduce heat escaping through the windows.
- If you're not filling up the washing machine, tumble dryer or dishwasher, use the half-load or economy programme. Minimise the use of tumble dryers and dry clothes outdoors where possible.