

# Energy Performance Certificate

Northern Ireland

35 Old Belfast Road  
NEWTOWNARDS  
BT23 4SG

Date of assessment: 21 January 2011  
Date of certificate: 24 January 2011  
Reference number: 9279-0839-6590-4699-1922  
Accreditation scheme: Stroma Accreditation  
Assessor's name: Mr Shane McKenna DipOCDEA  
Assessor's accreditation number: STRO003984  
Employer/trading name: Ember Energy NI  
Employer/trading address: 8 The Mount, Belfast, BT5 4NA

Related party disclosure: No related party

## Energy Efficiency Rating

	Current	Potential
<i>Very energy efficient - lower running costs</i>		
<b>A</b> 92 plus		
<b>B</b> 81-91		
<b>C</b> 69-80	80	82
<b>D</b> 55-68		
<b>E</b> 39-54		
<b>F</b> 21-38		
<b>G</b> 1-20		
<i>Not energy efficient - higher running costs</i>		

## Technical Information

**Main heating type and fuel:** Boiler and radiators, oil  
**Total floor area:** 153 m<sup>2</sup>  
**Approximate energy use:** 111 kWh/m<sup>2</sup> per year  
**Approximate CO<sub>2</sub> emissions:** 22 kg/m<sup>2</sup> per year  
**Dwelling type:** Detached house

## Benchmarks

Typical new build **79**  
Average for Northern Ireland **50**

The approximate energy use and CO<sub>2</sub> 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 used, carbon dioxide (CO<sub>2</sub>) emissions and fuel costs of this home

	Current	Potential
Energy use	111 kWh/m <sup>2</sup> per year	104 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	3.3 tonnes per year	3.1 tonnes per year
Lighting	£137 per year	£81 per year
Heating	£292 per year	£302 per year
Hot water	£175 per year	£175 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 Stroma Accreditation, 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 this certificate is genuine

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at [www.emberenergyni.co.uk](http://www.emberenergyni.co.uk) together with details of their procedures for confirmation authenticity of a certificate and for making complaint.

## About the building's performance ratings

The ratings on the certificate proved 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 England and Wales 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](http://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 on the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.



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](http://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 (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
<b>A</b> 92 plus		
<b>B</b> 81-91		
<b>C</b> 69-80	78	79
<b>D</b> 55-68		
<b>E</b> 39-54		
<b>F</b> 21-38		
<b>G</b> 1-20		
Not environmentally friendly - higher CO <sub>2</sub> emissions		

Visit the government's website at [www.communities.gov.uk/epbd](http://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 measurers to improve this home's energy performance

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## 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.

Element	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.29 W/m <sup>2</sup> K	Very Good	Very Good
Roof	Average thermal transmittance 0.16 W/m <sup>2</sup> K	Good	Good
Floor	Average thermal transmittance 0.22 W/m <sup>2</sup> K	Good	Good
Windows	Fully double glazed	Good	Good
Main heating	Boiler and radiators, oil	Good	Good
Main heating controls	Time and temperature zone control	Good	Good
Secondary heating	Room heaters, wood logs	-	-
Hot water	From main system	Good	Good
Lighting	Low energy lighting in 30% of fixed outlets	Average	Average
Air tightness	Air permeability 5.7 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	Good	Good

**Current energy efficiency rating** C 80

**Current environmental impact (CO<sub>2</sub>) rating** C 78

Thermal transmittance is a measure of the rate of heat loss through a building fabric; 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

The following low or zero carbon energy sources are provided for this home:

- Biomass secondary heating

## Recommendations

The measures below are cost effective. The performance ratings after improvements 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 improvements	
		Energy Efficiency	Environmental impact
1 Low energy lighting for all fixed outlets	£46	B 82	C 79
<b>Total</b>	<b>£46</b>		
Potential energy efficiency rating		B 82	
Potential environmental impact (CO <sub>2</sub> ) rating		C 79	

## 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. However you should check the conditions in any covenants, planning conditions, warranties or sale contracts.

2 Solar water heating	£44	B 84	B 81
3 Solar photovoltaic panels, 2.5kWp	£172	B 90	B 87
Enhanced energy efficiency rating		B 90	
Enhanced environmental impact (CO <sub>2</sub> ) rating		B 87	

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<sub>2</sub>) 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. 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.

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.

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<sup>1</sup> For information on approved competent persons schemes enter 'existing competent person schemes' into an internet search engine or contact your local Energy Saving Trust advice centre on 0800 512 012.