Energy Performance Certificate

Address of dwelling and other details

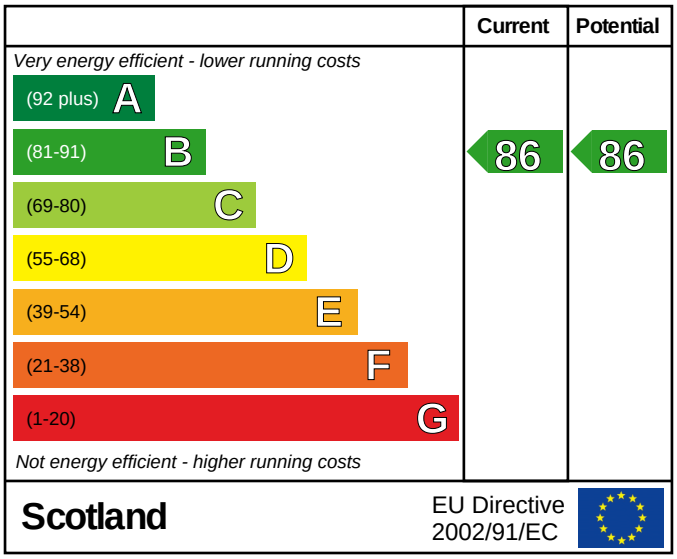
CALDER TYPE 2
PLOT 5 DOWNIES VILLAGE
PORTLETHEN
BY ABERDEEN
ABERDEENSHIRE

Dwelling type:	Detached house
Name of approved organisation:	Elmhurst Energy Systems Ltd
Membership number:	admin
Date of certificate:	22 March 2012
Reference number:	N/A
Type of assessment:	SAP, new dwelling
Total floor area:	156.51 m^2
Main type of heating and fuel:	Boiler and radiators, mains gas

This dwelling's performance ratings

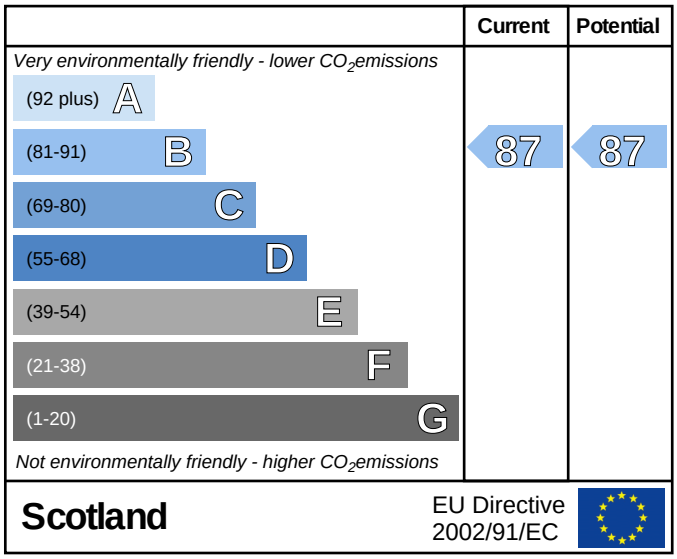
This dwelling has been assessed using the SAP 2009 methodology. Its performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO_2) emissions. CO_2 is a greenhouse gas that contributes to climate change.

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 (CO_2) Rating



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.

Approximate current energy use per square metre of floor area: 66 kWh/m^2 per year

Approximate current CO_2 emissions: 13 kg CO_2/m^2 per year

Cost effective improvements

Below is a list of lower cost measures that will raise the energy performance of the dwelling to the potential indicated in the tables above.

Not Applicable

A full energy report is appended to this certificate

Remember to look for the Energy Saving Trust 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

Energy Report

The Energy Performance Certificate and Energy Report for this dwelling were produced following an energy assessment undertaken by a member of Elmhurst Energy Systems Ltd. This is an organisation which has been approved by the Scottish Ministers. The certificate has been produced under the Building (Scotland) Amendment Regulations 2006.

Assessor's name: Bill MacDougall
Company name/trading name: Northern Energy Consultants
Address: Shiel Cottage Alford Aberdeenshire AB33 8NU
Phone number: 019755 81400
Fax number:
E-mail address: northern.energy@virgin.net
Related party disclosure: No related party

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

	Current	Potential
Energy use	66 kWh/m^{2}per year	66 kWh/m^{2}per year
Carbon dioxide emissions	2.0 tonnes per year	2.0 tonnes per year
Lighting	£66 per year	£66 per year
Heating	£310 per year	£310 per year
Hot water	£99 per year	£99 per year

The figures in the table above have been provided to enable prospective buyers and tenants to compare the fuel costs and carbon emissions of one home with another. To enable this comparison the figures have been calculated using standardised running conditions (heating periods, room temperatures, etc.) that are the same for all homes, consequently they are unlikely to match an occupier's actual fuel bills and carbon emissions in practice. The figures do not include the impacts of the fuels used for cooking or running appliances, such as TV, fridge etc.; nor do they reflect the costs associated with service, maintenance or safety inspections. Always check the certificate date because fuel prices can change over time and energy saving recommendations will evolve.

About the building's performance ratings

The ratings on the certificate provide a measure of the buildings 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.

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.

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 in the certificate describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

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.

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 by the national calculation methodology; 1 star means least efficient and 5 stars means most efficient

Element	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.17 W/m^2	★★★★★	★★★★★
Roof	Average thermal transmittance 0.11 W/m^2	★★★★★	★★★★★
Floor	Average thermal transmittance 0.13 W/m^2	★★★★★	★★★★★
Windows	High performance glazing	★★★★★	★★★★★
Main heating	Boiler and radiators, mains gas	★★★★☆	★★★★☆
Main heating controls	Time and temperature zone control	★★★★★	★★★★★
Secondary heating	None	—	—
Hot water	From main system	★★★★☆	★★★★☆
Lighting	Low energy lighting in all fixed outlets	★★★★★	★★★★★
Air Tightness	Air permeability 5.0 m^3/h.m^2(assumed)	★★★★☆	★★★★☆

Current energy efficiency rating	B 86
Current environmental impact (CO_2) rating	B 87

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. The indicative costs are representative for most properties but may not apply in a particular case.

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. The indicative costs are representative for most properties but may not apply in a particular case.

	Indicative Cost	Typical savings per year	Ratings after improvement	
			Energy Efficiency	Environmental Impact
1 Solar water heating	£4,000 - £6,000	£40	B 87	B 89
2 Solar photovoltaic panels, 2.5 kWp	£11,000 - £20,000	£219	A 93	A 95
Enhanced energy efficiency rating			A 93	
Enhanced environmental impact (CO_2) rating				A 95

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

Not applicable

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 approal from your landlord if the lease either requires it, or makes no express provision for such work.

1 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. Building regulations may apply to this work. You could be eligible for Renewable Heat Incentive payments which could appreciably increase the savings beyond those shown on your EPC, provided that both the product and the installer are certified by the Microgeneration Certification Scheme (or equivalent). Details of local MCS installers are available at www.microgenerationcertification.org.

2 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. Planning restrictions may apply in certain neighbourhoods and you should check this with the local authority. Building regulations may apply to this work, so it is best to obtain advice from your local authority building standards department and from a suitably qualified electrician. The assessment does not include the effect of any Feed-in Tariff which could appreciably increase the savings that are shown on this EPC for solar photovoltaic panels, provided that both the product and the installer are certified by the Microgeneration Certification Scheme (or equivalent). Details of local MCS installers are available at www.microgenerationcertification.org.

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 CO_2emissions. 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.