

# Energy Performance Certificate

## Address of dwelling and other details

7 COLTHILL CRESCENT,  
MILLTIMBER,  
ABERDEEN,  
AB13 0EG

Dwelling type: Detached house  
 Name of approved organisation: RICS Protocol for Scotland  
 Membership number: RICS171266  
 Date of certificate: 18 June 2010  
 Reference number: 0160-2523-1160-9990-7685  
 Type of assessment: RdSAP, existing dwelling  
 Total floor area: 100 m<sup>2</sup>  
 Main type of heating and fuel: Boiler and radiators, mains gas

## This dwelling's performance ratings

This dwelling has been assessed using the RdSAP 2005 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<sub>2</sub>) emissions. CO<sub>2</sub> is a greenhouse gas that contributes to climate change.

Energy Efficiency Rating		Current	Potential
Very energy efficient - lower running costs			
(92 plus) A			
(81-91) B			
(69-80) C			
(55-68) D			
(39-54) E		41	51
(21-38) F			
(1-20) G			
Not energy efficient - higher running costs			
Scotland	EU Directive 2002/91/EC		

Environmental Impact (CO <sub>2</sub> ) Rating		Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions			
(92 plus) A			
(81-91) B			
(69-80) C			
(55-68) D			
(39-54) E		45	53
(21-38) F			
(1-20) G			
Not environmentally friendly - higher CO <sub>2</sub> emissions			
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.

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

Approximate current energy use per square metre of floor area: 431 kWh/m<sup>2</sup> per year

Approximate current CO<sub>2</sub> emissions: 62 kg/m<sup>2</sup> 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. Higher cost measures could also be considered and these are recommended in the attached energy report.

- |   |                            |
|---|----------------------------|
| 1 Cavity wall insulation                    | 3 Upgrade heating controls |
| 2 Low energy lighting for all fixed outlets |                            |

A full energy report is appended to this certificate



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.

Information from this EPC may be given to the Energy Saving Trust to provide advice to householders on financial help available to improve home energy efficiency.

**N.B. THIS CERTIFICATE MUST BE AFFIXED TO THE DWELLING AND NOT BE REMOVED UNLESS IT IS REPLACED WITH AN UPDATED VERSION**

### Summary of this home's energy performance related features

The table below gives an assessment of the key individual elements that have an impact on this home's energy and environmental performance. Each element is assessed by the national calculation methodology against the following scale: Very poor / Poor / Average / Good / Very good. The assessment does not take into consideration the physical condition of any element. 'Assumed' means that the insulation could not be inspected and an assumption has been made in the methodology based on age and type of construction.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Cavity wall, as built, no insulation (assumed)	Poor	Poor
Roof	Pitched, 100 mm loft insulation Roof room(s), limited insulation (assumed)	Average Poor	Average Poor
Floor	Suspended, no insulation (assumed)	-	-
Windows	Fully double glazed	Average	Average
Main heating	Boiler and radiators, mains gas	Good	Good
Main heating controls	Programmer, TRVs and bypass	Average	Average
Secondary heating	Room heaters, wood logs	-	-
Hot water	From main system	Good	Good
Lighting	No low energy lighting	Very poor	Very poor

**Current energy efficiency rating**

**E 41**

### Low and zero carbon energy sources

These are sources of energy (producing or providing electricity or hot water) which emit little or no carbon dioxide into the atmosphere. The following are provided for this home:

- Biomass secondary heating

### Recommended measures to improve this home's energy performance

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. However you should check the conditions in any covenants, warranties or sale contracts, and whether any legal permissions are required such as a building warrant, planning consent or listed building restrictions.

Lower cost measures (up to £500)	Typical savings per year	Performance ratings after improvement	
		Energy efficiency	Environmental impact
1 Cavity wall insulation	£134	E 47	E 49
2 Low energy lighting for all fixed outlets	£37	E 49	E 50
3 Upgrade heating controls	£56	E 51	E 53
<b>Sub-total</b>	<b>£227</b>		
<b>Higher cost measures (over £500)</b>			
4 Replace boiler with new condensing boiler	£98	D 56	D 58
<b>Total</b>	<b>£325</b>		

Potential energy efficiency rating **D 56**

Potential environmental impact (CO<sub>2</sub>) rating **D 58**

### 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, warranties or sale contracts, and whether any legal permissions are required such as a building warrant, planning consent or listed building restrictions.

5 Solar water heating	£26	D 57	D 60
6 Solar photovoltaic panels, 2.5 kWp	£172	D 66	C 69

Enhanced energy efficiency rating **D 66**

Enhanced environmental impact (CO<sub>2</sub>) rating **C 69**

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

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.

### 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 Cavity wall insulation

Cavity wall insulation, to fill the gap between the inner and outer layers of external walls with an insulating material, reduces heat loss. This will improve levels of comfort, reduce energy use and lower fuel bills. The insulation material is pumped into the gap through small holes that are drilled into the outer walls, and the holes are made good afterwards. As specialist machinery is used to fill the cavity, a professional installation company should carry out this work, and they should carry out a thorough survey before commencing work to ensure that this type of insulation is suitable for this home and its exposure. They should also provide a guarantee for the work and handle any building standards issues. Further information about cavity wall insulation and details of local installers can be obtained from the National Insulation Association ([www.nationalinsulationassociation.org.uk](http://www.nationalinsulationassociation.org.uk)).

#### 2 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.

#### 3 Heating controls (room thermostat)

The heating system should have a room thermostat to enable the boiler to switch off when no heat is required. A competent heating engineer should be asked to do this work. Insist that the thermostat switches off the boiler as well as the pump and that the thermostatic radiator valve is removed from any radiator in the same room as the thermostat. Building regulations may apply to this work, so it is best to obtain advice from your local authority building standards department and from a qualified heating engineer.

### Higher cost measures (typically over £500 each)

#### 4 New condensing boiler

A condensing boiler is capable of much higher efficiencies than other types of boiler, meaning it will burn less fuel to heat this property. This improvement is most appropriate when the existing central heating boiler needs repair or replacement, but there may be exceptional circumstances making this impractical. Condensing boilers need a drain for the condensate which limits their location; remember this when considering remodelling the room containing the existing boiler even if the latter is to be retained for the time being (for example a kitchen makeover). Building regulations may apply to this work, so it is best to obtain advice from your local authority building standards department and from a qualified heating engineer.

## 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.

#### 5 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 call 0800 512 012 (Energy Saving Trust). Building regulations may apply to this work.

## 6 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, or call 0800 512 012 (Energy Saving Trust). 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.

### 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<sub>2</sub> emissions.
- If you have a conservatory or sunroom, avoid heating it in order to use it in cold weather and close doors between the conservatory and dwelling.
- 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.
- 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.
- Close your curtains at night to reduce heat escaping through the windows.

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).