# **Energy Performance Certificate**

### Address of dwelling and other details

Willow House Dwelling type: Detached house

Paterson Place Name of protocol: RIAS

Haddington Membership number: RIA1-D-00224
East Lothian Date of certificate: 13 September 2012

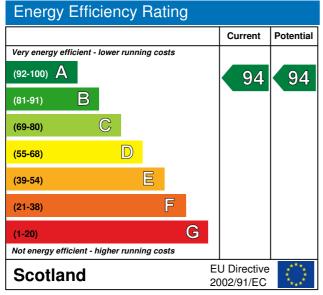
EH41 3DU Total floor area: 226 m<sup>2</sup>

Main type of heating and fuel: Boiler and underfloor heating, mains

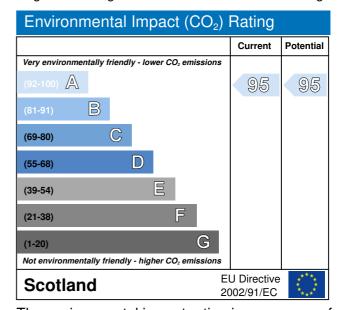
gas

### 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<sub>2</sub>) emissions. Carbon dioxide is a greenhouse gas that contributes to climate change.



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: 28 kWh/m² per year

Approximate current CO<sub>2</sub> emissions: 5 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.

Not applicable

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. 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 RIAS. 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:

Company name/trading name:

Address:

Phone number: Fax number: E-mail address:

Related party disclosure: No related party

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

	Current	Potential	
Energy use	28 kWh/m² per year	28 kWh/m² per year	
Carbon dioxide emissions	1.1 tonnes per year	1.1 tonnes per year	
Lighting	£80 per year	£80 per year	
Heating	£489 per year	£489 per year	
Hot water	£102 per year	£102 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 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.

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 = very poor (least efficient), 2 stars = poor, 3 stars = average, 4 stars = good and 5 stars = very good (most efficient).

Element	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.16 W/m²K	****	****
Roof	Average thermal transmittance 0.11 W/m²K	****	****
Floor	Average thermal transmittance 0.10 W/m²K	****	****
Windows	High performance glazing	****	****
Main heating	Boiler and underfloor heating, mains gas	****	****
Main heating controls	Time and temperature zone control	****	****
Secondary heating	Room heaters, wood logs	-	-
Hot water	From main system	****	****
Lighting	Low energy lighting in all fixed outlets	****	****
Air tightness	Air permeability 1.9 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	****	****

### Current energy efficiency rating

A 94

### Current environmental impact (CO<sub>2</sub>) rating

A 95

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

These are sources of energy (producing or providing electricity or hot water) which emit little or no carbon dioxide into the atmosphere.

- · Biofuel secondary heating
- Solar photovoltaics

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

None.

# Further measures to achieve even higher standards

None.

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

Not applicable

### About the further measures achieve even higher standards

Not applicable

#### 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. The papers you are given by the builder and the warranty provider will help you in this.
- 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 ℃.
- 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.

<sup>&</sup>lt;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.