

## Energy Performance Certificate

### Address of dwelling and other details

Flat 2 3 Lochend  
Butterfly Way  
Edinburgh  
EH7 5FF


plk 79

Dwelling type: Ground floor flat  
Name of approved organisation: NHER Accreditation Scheme  
Membership number: NHER003692  
Date of certificate: 13 October 2010  
Reference number: N/A  
Type of assessment: SAP, new dwelling  
Total floor area: 67 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 SAP 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) <b>A</b>		
(81 - 91) <b>B</b>		
(69 - 80) <b>C</b>	<b>80</b>	<b>82</b>
(55 - 68) <b>D</b>		
(39 - 54) <b>E</b>		
(21 - 38) <b>F</b>		
(1 - 20) <b>G</b>		
Not energy efficient - higher running costs		
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.

Approximate current energy use per square metre of floor area: 157 kWh/m<sup>2</sup> per year  
Approximate current CO<sub>2</sub> emissions: 26 kg/m<sup>2</sup> per year

#### Environmental Impact (CO<sub>2</sub>) Rating

	Current	Potential
Very environmentally friendly - lower CO <sub>2</sub> emissions		
(92 plus) <b>A</b>		
(81 - 91) <b>B</b>		
(69 - 80) <b>C</b>	<b>79</b>	<b>81</b>
(55 - 68) <b>D</b>		
(39 - 54) <b>E</b>		
(21 - 38) <b>F</b>		
(1 - 20) <b>G</b>		
Not environmentally friendly - higher CO <sub>2</sub> emissions		
Scotland	EU Directive 2002/91/EC	

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.

### 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 table(s) above.

- 1 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.

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)

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



## Energy Report



The Energy Performance Certificate and Energy Report for this dwelling were produced following an energy assessment. The certificate has been produced under the Building (Scotland) Amendment Regulations 2006.

Assessor's name: Mr Matt Tiller  
Company name/trading name: Environmental Economics Ltd  
Address: 8 Cardiff Road, Luton, Beds, LU1 1PP  
Phone number: 01582 450814  
Fax number:  
E-mail address: [epc@environmental-economics.co.uk](mailto:epc@environmental-economics.co.uk)  
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	157 kWh/m <sup>2</sup> per year	146 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	1.7 tonnes per year	1.6 tonnes per year
Lighting	£0 per year	£37 per year
Heating	£269 per year	£275 per year
Hot water	£88 per year	£88 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.

### 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 on 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.

Plan Assessor 4.5 (SAP 9.81)

### 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 0.43 W/m <sup>2</sup> K	Good	Good
Roof	(other premises above)	-	-
Floor	Average thermal transmittance 0.40 W/m <sup>2</sup> K	Average	Average
Windows	High performance glazing	Very good	Very good
Main heating	Boiler and radiators, mains gas	Very good	Very good
Main heating controls	Programmer, room thermostat and TRVs	Average	Average
Secondary heating	None	-	-
Hot water	From main system	Very good	Very good
Lighting	No low energy lighting	Compliant	Compliant
Air tightness	(not tested)	-	-

**Current energy efficiency rating**

**C 80**

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

**C 79**

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

### 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. There are none applicable to this home.



### 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 Low energy lighting for all fixed outlets	£-42	B 82	B 81
Total	£-42		
Potential energy efficiency rating		B 82	
Potential environmental impact (CO <sub>2</sub> ) rating		B 81	

### Further measures to achieve even higher standards

None.

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 for all fixed outlets

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

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 CO2 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.
- 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.