

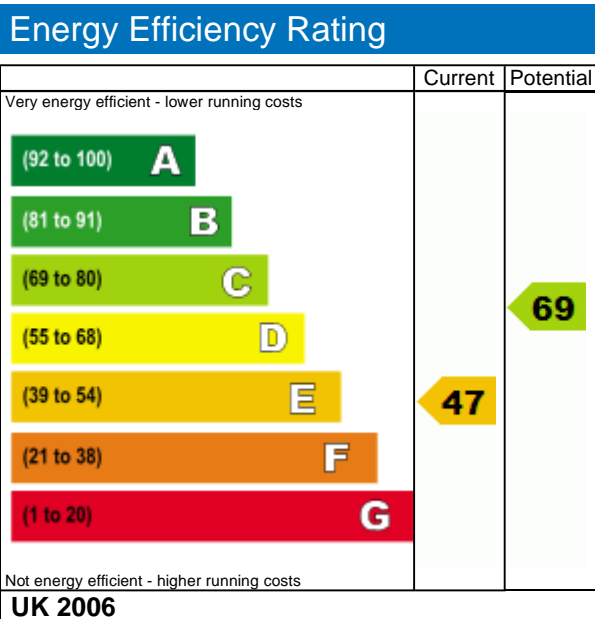
Energy Performance Certificate

15, Denmark Street
Bletchley
MILTON KEYNES
MK2 2NH

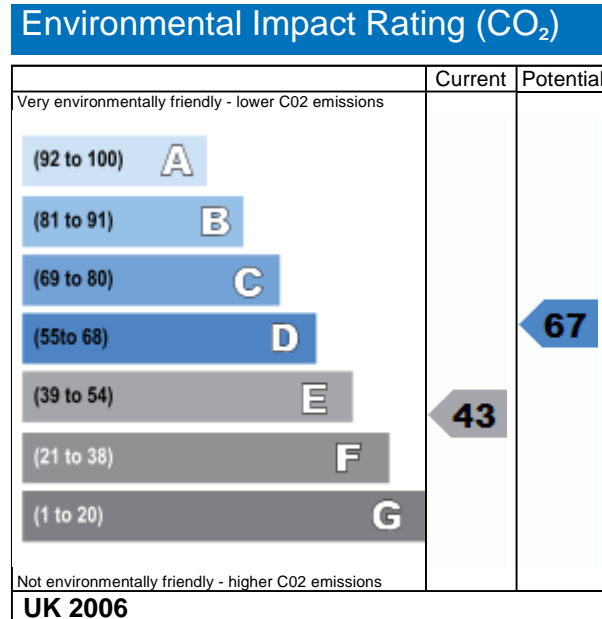
Dwelling type: House
Name of inspector: Mr James cartwright

Date of inspection: 24 January 2007
Date of report: 24 January 2007
Reference number: 15732
Total floor area: 85.18 m²

This home's 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 (CO₂) emissions.



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 will be.



The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating, the less impact it has on the environment.

Estimated energy use, carbon dioxide (CO₂) emissions and fuel costs of this home

	Current	Potential
Energy use	341 kWh/m ² per year	195 kWh/m ² per year
Carbon dioxide emissions	5.80 tonnes per year	3.34 tonnes per year
Lighting	£42.69 per year	£24.40 per year
Heating	£356.46 per year	£193.97 per year
Hot water	£105.23 per year	£69.73 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 energy use includes the energy used in producing and delivering the fuels 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 an older certificate may underestimate the property's fuel costs.

To see how this home can achieve its potential rating please see the recommended measures.

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:
Very poor/Poor/Average/Good/Very good.

Element	Description	Current performance
Main walls	Solid brick (as built)	Very poor
Main roof	Pitched, 75mm loft insulation	Poor
Main floor	Uninsulated solid concrete (assumed)	Average
Windows	100% Double glazed or better. Pre-2002	Average
Main heating	Mains gas boiler	Average
Main heating controls	Programmer and room thermostat	N/A
Secondary heating	None	N/A
Hot water	From main	N/A
Lighting	25% of lighting provided by low-e bulbs	Poor
Current energy efficiency rating		E : 47
Current environmental impact rating		E : 43

Recommended measures to improve this home's performance ratings

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.

Lower cost measures (up to £500)	Typical savings	Performance ratings after improvements	
		Energy efficiency	Environmental impact
Replace all non-low-energy lightbulbs	£14.00 per year	E : 48	E : 44
Upgrade loft insulation to 250mm	£53.00 per year	E : 53	E : 49
Sub-total	£67.00 per year		
Higher cost measures (over £500)			
'A' rated boiler (same fuel) with programmer, stat and TRVs	£150.00 per year	C : 69	D : 67
Total	£217.00 per year		
Potential energy efficiency rating		C : 69	
Potential environmental impact rating		D : 67	

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.

Fit 50mm internal insulation to walls	£52.00 per year	C : 74	C : 73
Add solar water heating	£12.00 per year	C : 75	C : 75
Add a photovoltaic system	£8.00 per year	C : 76	C : 76
Total	£289.00 per year		
Enhanced energy efficiency rating		C : 76	
Enhanced environmental impact rating		C : 76	

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 reduced carbon dioxide (CO₂) emissions.

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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 from an energy advisor before carrying out DIY improvements.

Replace all non-low-energy lightbulbs

Replace any traditional light bulbs in this home with energy saving recommended ones; these reduce lighting costs over the lifetime of the bulb - and they last up to 12 times longer than ordinary light bulbs.

Upgrade loft insulation to 250mm

The anticipated cost is based upon a contractor installing an additional 100mm of glass fibre or mineral wool insulation in your loft, but it can also be installed by a capable DIY enthusiast. If you choose a DIY installation then take care not to block ventilation at the edge of the loft space as this may cause condensation. When handling the insulation always wear gloves and a mask.

Higher cost measures (typically over £500 each)

'A' rated boiler (same fuel) with programmer, stat and TRVs

This improvement is most appropriate when your existing central heating boiler requires repair or replacement. A condensing boiler is capable of much higher efficiencies than other types of boiler, meaning it will burn less fuel to heat your property. Since condensing boilers require an additional drain to be connected, only a qualified heating engineer should carry out the installation.

About the further measures to achieve even higher standards

Further measures that could deliver even higher standards for this home

Fit 50mm internal insulation to walls

This is only recommended for solid walls (without a cavity), and it involves adding a layer of insulation to the inside or outside surface of your walls. You can choose between two systems. The first is often called dry-lining, and is most appropriate if you are decorating inside your home, because a layer of insulation is added to the inside of your walls. The second, external wall insulation, is a major improvement to the outside of your home. This system includes an insulant and a weather protective finish, and improves the look of your home whilst also giving lasting weather protection and helping to prevent damage to the outside walls. Either of these improvements will stop the heat from escaping from your home so you might like to take professional advice to help you choose between them.

Add solar water heating

A thermal 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. These panels are among the most cost-effective renewable systems that can be installed on dwellings in urban or rural environments. The Solar Trade Association has up-to-date information on local installers and any grant that may be available.

Add a photovoltaic system

A solar photovoltaic (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 Solar Trade Association has up-to-date information on local installers and any grant that may be available.

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General Information

About this energy inspection

This inspection has been undertaken by a qualified Inspector who has received appropriate training to collect the correct information about the energy performance of homes. This information has been processed by a Government approved organisation to produce the energy performance certificate and the recommendations for improvements in this report. Both the Inspector and the energy performance certificate supplier are regularly monitored to ensure that their work is up to standard.

For clarification of the technical information in this Energy Performance Certificate, please contact the Home Inspector.

EU legislation dealing with Energy Performance Certificates is to be implemented early in 2007. If you wish to re-use this Certificate later, you should contact the scheme of which the inspector is a member to find out if that is possible.

About this home's performance ratings

The ratings provide a measure of the overall energy efficiency of this home and its environmental impact. Both are calculated using the Standard Assessment Procedure (SAP), which is the Government's recommended system for assessing the energy performance of dwellings. The ratings take into account the home's insulation, heating systems, hot water system, fixed lighting, ventilation, number of windows and fuels used.

Not all of us use our homes in the same way so to allow one home to be directly compared to another, energy ratings are calculated using 'standard occupancy' assumptions. Standard occupancy is based on a home in a central UK location and assumes that during the heating season the home is heated for 9 hours a day during weekdays and 16 hours a day at weekends, with the living room heated to 21°C and the rest of the home at 18°C.

The ratings are expressed on a scale of 1 to 100. The higher the energy efficiency rating the more energy efficient the home and the higher the environmental impact rating the less impact it has on the environment.

Homes which are more energy efficient use less energy, saving money and helping to protect the environment. The cost of providing lighting, heating and hot water to a home with an energy efficiency rating of 100 would be practically zero. Similarly the carbon dioxide emissions from lighting, heating and hot water for a home with an environmental impact rating of 100 would be practically zero.

The potential ratings shown above describe the energy performance of the home assuming all cost effective measures have been installed. For comparison a home built to the 2006 Building Regulations would typically be around the boundary of bands B and C, depending on its type, size and heating fuel.

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This home's impact on the environment

Carbon dioxide is one of the biggest contributors to the man-made greenhouse effect. We all use energy every day - at home, at work and when we travel. To generate that energy, we burn fossil fuels (coal, oil and gas) that produce 'greenhouse' gases - particularly carbon dioxide - which are changing our climate and damaging the environment. The energy we use for heating, lighting and power in our homes produces over a quarter of the UK's carbon dioxide emissions.

The average household in the UK creates about six tonnes of carbon dioxide every year. There are simple steps you can take to cut carbon dioxide emissions and help prevent climate change. Making your home more energy efficient by adopting the suggestions in this report can help protect the environment by reducing carbon dioxide emissions. You could reduce your emissions even more by switching to renewable energy sources.

What can I do today?

In addition to the specific measures suggested in this report, don't forget there are many simple measures you can put into action today that will save you money, help reduce your impact on the environment and improve the comfort of your home.

For example:

- Check that your heating system thermostat is not set too high (21°C in the living room is suggested) and use the timer or programmer to ensure you only heat your home when necessary.
- Make sure your hot water is not too hot. Your cylinder thermostat shouldn't need to be set higher than 60°C/140F.
- 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.



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.est.org.uk/myhome

About the Home Inspector

This page has been removed as this is a report prepared by a candidate solely for training and assessment purposes.