

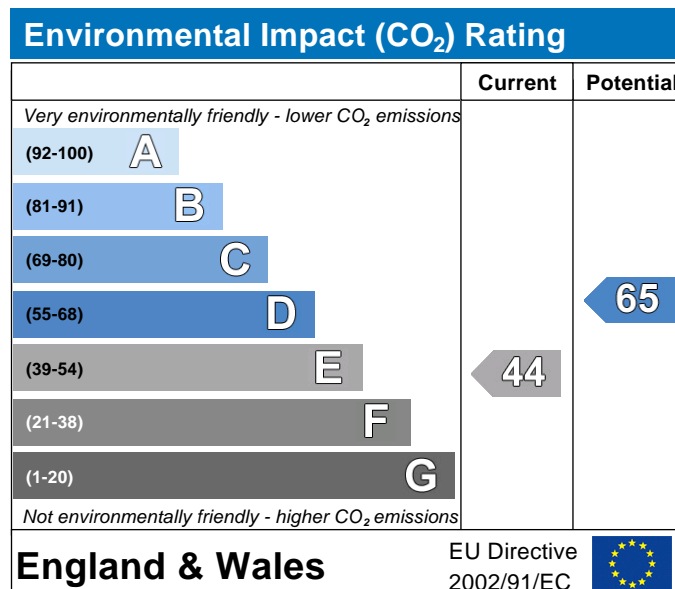
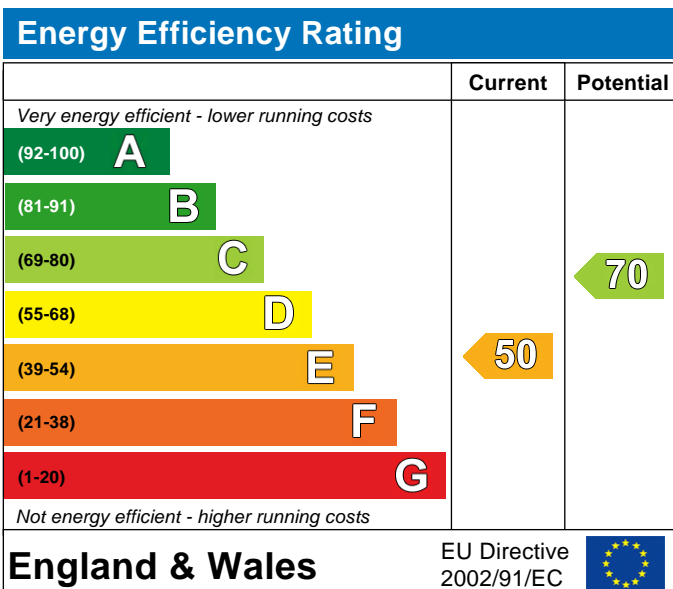
# Energy Performance Certificate



19, Shakespeare Road  
Darlington  
County Durham  
DL1 5BQ

Dwelling Type: Semi-detached house  
Date of Assessment: 22/01/2008  
Date of Certificate: 22/01/2008  
Reference Number: 2428-1083-6219-4948-3004  
Total Floor Area: 81 m<sup>2</sup>

This home's performance is rated in terms of 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.



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 (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

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

	Current	Potential
Energy Use	409 kWh/m <sup>2</sup> per year	242 kWh/m <sup>2</sup> per year
Carbon dioxide emissions	5.5 tonnes per year	3.3 tonnes per year
Lighting	£61 per year	£33 per year
Heating	£513 per year	£358 per year
Hot water	£181 per year	£82 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.

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



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/myhome**

Certification mark

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Northgate Information Solutions, to a scheme authorised by the Government. This certificate was produced using RdSAP 2005 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections) (England and Wales) Regulations 2007. A copy of the certificate has been lodged on a national register.

Assessors accreditation number: NGIS705098  
Assessors name: Philip Andrew Stanley  
Company name/trading name: Energy Reports and Surveys Limited  
Address: Unit 2 The Oaks Office Park, Stanney Mill Lane, Little Stanney, Ellesmere Port, CH2 4HY

Phone number: 0151 350 6000  
Fax number: 0151 350 6001  
E-mail address: EPC@ers-uk.com  
Related party disclosure:

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are on the certificate. You can get contact details of the accreditation scheme from our website at <http://www.northgate-dea.co.uk/> together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance rating

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. The average energy efficiency rating for a dwelling in England and Wales is band E (rating 46).

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 building. Different methods of calculation are used for homes and for other building types. Details can be found at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd).

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 and protect the environment. You should 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, such as:

- Check that your heating system thermostat is not set too high (in a home, 21°C in the living room is suggested) and use your timer to ensure that 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.

### Visit the Government's website at [www.communities.gov.uk/epbd](http://www.communities.gov.uk/epbd) to:

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

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

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## 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	
		Energy Efficiency	Environmental
Walls	Cavity wall, filled cavity	Good	Good
Roof	Pitched, 200 mm loft insulation Pitched, limited insulation (assumed)	Good Very poor	Good Very poor
Floor	Solid, no insulation (assumed)	-	-
Windows	Single glazed	Very poor	Very poor
Main Heating	Boiler and radiators, mains gas	Average	Average
Main Heating Controls	Programmer, no room thermostat	Very poor	Very poor
Secondary Heating	Room heaters, mains gas	-	-
Hot Water	From main system, no cylinderstat	Poor	Poor
Lighting	Low energy lighting in 13% of fixed outlets	Poor	Poor
<b>Current energy efficiency rating</b>		<b>E 50</b>	
<b>Current environmental impact (CO<sub>2</sub>) rating</b>		<b>E 44</b>	

## Recommendations

All 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 per year	Performance ratings after improvement	
		Energy efficiency	Environmental Impact
1 Increase hot water cylinder insulation to 160 mm	£18	E 51	E 45
2 Low energy lighting for all fixed outlets	£21	E 53	E 46
Sub-total	£39		
<b>Higher cost measures</b>			
3 Hot water cylinder thermostat	£17	E 54	E 47
4 Upgrade heating controls (Wet)	£98	D 61	E 54
5 Replace boiler with Band A condensing boiler	£121	C 70	D 65
Total	£275		
<b>Potential energy efficiency rating</b>		<b>C 70</b>	
<b>Potential environmental impact (CO<sub>2</sub>) rating</b>			<b>D 65</b>

## 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.

6 Replace single glazed windows with low-E double glazing	£54	C 74	C 70
7 Solar photovoltaics panels, 25% of roof area	£39	C 76	C 73
<b>Enhanced energy efficiency rating</b>		<b>C 76</b>	
<b>Enhanced environmental impact (CO<sub>2</sub>) rating</b>			<b>C 73</b>

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 reduced carbon dioxide (CO<sub>2</sub>) emissions.

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

### Low cost measures (typically up to £500 each)

These measures are relatively inexpensive 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.

#### 1 Hot water cylinder insulation

Increasing the thickness of existing insulation up to 160 mm around the hot water cylinder will help to reduce fuel bills. The jacket should be fitted over the top of the existing insulation and over any thermostat clamped to the cylinder. Hot water pipes from the hot water cylinder should also be insulated, using pre-formed pipe insulation of 50mm thickness, for as far as they can be accessed. All these materials can be purchased from DIY stores and installed by a competent DIY enthusiast.

#### 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.

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

#### 3 Cylinder thermostat

The hot water cylinder should have a cylinder thermostat to ensure the boiler switches off when the water in the cylinder is hot enough. Ask a competent plumber or heating engineer to install one.

#### 4 Heating controls

A room thermostat will increase the efficiency of the heating system by ensuring the boiler switches off when no heat is required. Thermostatic radiator valves should also be installed, to allow the temperature of each room to be controlled to suit individual needs, adding to comfort and reducing heating bills. For example, they can be set to be warmer in the living room and bathroom than in the bedrooms. Ask a competent heating engineer to install radiator valves and a fully pumped system with the pump and the boiler turned off by the room thermostat. Radiator valves should be fitted to every radiator except for the radiator in the same room as the room thermostat. Remember the room thermostat is needed as well as the thermostatic radiator valves, to ensure the boiler switches off when no heat is required.

#### 5 Band A 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. Building Regulations apply to this work, so your local authority building control department should be informed, unless the installer is registered with a competent persons scheme<sup>{1}</sup>, and can therefore self-certify the work for Building Regulation compliance.

## About the further measures to achieve even higher standards

### 6 Double glazing

Double glazing is the term given to a system where two panes of glass are made up into a sealed unit. Replacing existing single-glazed windows with double glazing will improve comfort in the home by reducing draughts and cold spots near windows. Double-glazed windows may also reduce noise, improve security and combat problems with condensation. Building Regulations apply to this work, so either use a contractor who is registered with a competent persons scheme or obtain advice from your local authority building control department.

### 7 Photovoltaics

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. Building Regulations apply to this work, so your local authority building control department should be informed, unless the installer is registered with a competent persons scheme<sup>{1}</sup>, and can therefore self-certify the work for Building Regulation compliance.