# Energy Performance Certificate

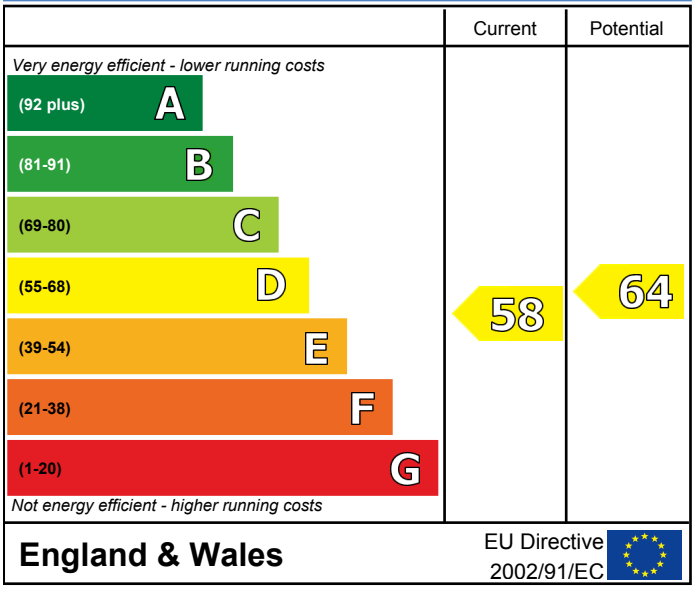
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Flat 1,
81, Forest Road West,
NOTTINGHAM,
NG7 4ER

| | |
|---|---|
| Dwelling type: | Ground-floor flat |
| Date of assessment: | 11 August 2010 |
| Date of certificate: | 11 August 2010 |
| Reference number: | 9098-0007-6208-7180-8964 |
| Type of assessment: | RdSAP, existing dwelling |
| Total floor area: | 71 m² |

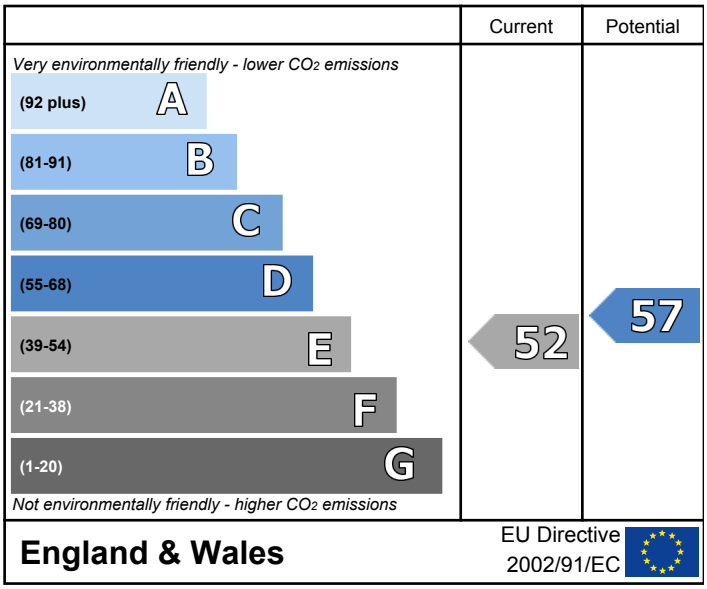
This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide ($CO_2$) emissions.

## Energy Efficiency Rating




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.

## Environmental Impact ($CO_2$) Rating




The environmental impact rating is a measure of this home's impact on the environment in terms of Carbon dioxide ($CO_2$) emissions. The higher the rating the less impact it has on the environment.

## Estimated energy use, carbon dioxide ($CO_2$) emissions and fuel costs of this home

| | Current | Potential |
|---|---|---|
| Energy use | 356 kWh/m² per year | 310 kWh/m² per year |
| Carbon dioxide emissions | 4.2 tonnes per year | 3.7 tonnes per year |
| Lighting | £77 per year | £39 per year |
| Heating | £665 per year | £604 per year |
| Hot water | £102 per year | £96 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.

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

energy saving recommended
Certification mark

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.

This EPC and recommendations report may be given to the Energy Saving Trust to provide you with information on improving your dwelling's energy performance.

## About this document

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

| | |
|---|---|
| Assessor's accreditation number: | EES/005637 |
| Assessor's name: | Mr. Matthew Riches |
| Company name/trading name: | Matthew Riches |
| Address: | 19 Bradbury Gardens, Ruddington, Nottingham, Nottinghamshire, NG11 6AX |
| Phone number: | 07917 416817 |
| Fax number: | |
| E-mail address: | info@matthewrichesdea.com |
| Related party disclosure: | No related party |

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

Details of the assessor and the relevant accreditation scheme are as above. You can get contact details of the accreditation scheme from their website at www.elmhurstenergy.co.uk together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## 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. 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 home. Different methods of calculation are used for homes and for other buildings. Details can be found at 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 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.

**Visit the Department for Communities and Local Government website at 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 - the Department is the controller of the data on the register for Data Protection Act 1998 purposes
- Learn more about energy efficiency and reducing energy consumption

Further information about Energy Performance Certificates can be found under Frequently Asked Questions at www.epcregister.com

# Recommended measures to improve this home's energy performance

Flat 1,
81, Forest Road West,
NOTTINGHAM, NG7 4ER

Date of certificate: 11 August 2010
Reference number: 9098-0007-6208-7180-8964

## 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 | Solid brick, as built, no insulation (assumed) | Very poor | Very poor |
| Roof | (another dwelling above)<br>Pitched, no insulation | -<br>Very poor | -<br>Very poor |
| Floor | Suspended, no insulation (assumed) | - | - |
| Windows | Partial double glazing | Poor | Poor |
| Main heating | Boiler and radiators, mains gas | Good | Good |
| Main heating controls | Programmer, TRVs and bypass | Average | Average |
| Secondary heating | None | - | - |
| Hot water | From main system | Good | Good |
| Lighting | No low energy lighting | Very poor | Very poor |
| Current energy efficiency rating | | D 58 | |
| Current environmental impact ($CO_2$) rating | | | E 52 |

## Low and zero carbon energy sources

None

## Recommendations

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 loft insulation to 270 mm | £36 | D 60 | E 54 |
| 2 Low energy lighting for all fixed outlets | £30 | D 62 | D 55 |
| 3 Upgrade heating controls | £40 | D 64 | D 57 |
| **Total** | **£106** | | |
| Potential energy efficiency rating | | D 64 | |
| Potential environmental impact ($CO_2$) rating | | | D 57 |

## 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. However you should check the conditions in any covenants, planning conditions, warranties or sale contracts.

| | | | |
|---|---|---|---|
| 4 Replace single glazed windows with low-E double glazing | £21 | D 65 | D 59 |
| 5 50 mm internal or external wall insulation | £172 | C 75 | C 71 |
| Enhanced energy efficiency rating | | C 75 | |
| Enhanced environmental impact ($CO_2$) rating | | | C 71 |

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 ($CO_2$) 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 Loft insulation**

Loft insulation laid in the loft space or between roof rafters to a depth of at least 270 mm will significantly reduce heat loss through the roof; this will improve levels of comfort, reduce energy use and lower fuel bills. Insulation should not be placed below any cold water storage tank, any such tank should also be insulated on its sides and top, and there should be boarding on battens over the insulation to provide safe access between the loft hatch and the cold water tank. The insulation can be installed by professional contractors but also by a capable DIY enthusiast. Loose granules may be used instead of insulation quilt; this form of loft insulation can be blown into place and can be useful where access is difficult. The loft space must have adequate ventilation to prevent dampness; seek advice about this if unsure. Further information about loft insulation and details of local contractors can be obtained from the National Insulation Association (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.

## 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.

**4 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[1] or obtain advice from your local authority building control department.

**5 Internal or external wall insulation**

Solid wall insulation involves adding a layer of insulation to either the inside or the outside surface of the external walls, which reduces heat loss and lowers fuel bills. As it is more expensive than cavity wall insulation it is only recommended for walls without a cavity, or where for technical reasons a cavity cannot be filled. Internal insulation, known as dry-lining, is where a layer of insulation is fixed to the inside surface of external walls; this type of insulation is best applied when rooms require redecorating and can be installed by a competent DIY enthusiast. External solid wall insulation is the application of an insulant and a weather-protective finish to the outside of the wall. This may improve the look of the home, particularly where existing brickwork or rendering is poor, and will provide long-lasting weather protection. Further information can be obtained from the National Insulation Association (www.nationalinsulationassociation.org.uk). It should be noted that planning permission might be required.

## 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.
- 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.

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.

[1] 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.