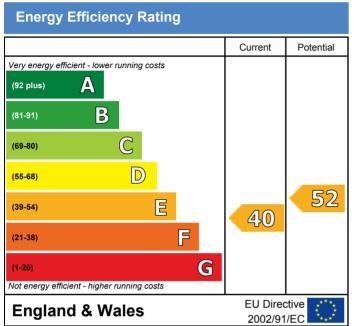


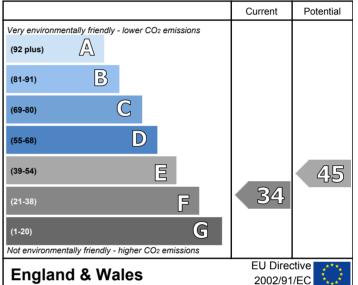
4a, Grove Avenue, NORWICH, NR1 2QD Dwelling type: Date of assessment: Date of certificate: Reference number: Total floor area: Top-floor flat 09 October 2008 09 October 2008 9452-2821-6502-0108-8781 74 m<sup>2</sup>

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<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 are likely to be.

# Environmental Impact (CO2) Rating



The environmental impact rating is a measure of this 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	rent Potential	
Energy use	540 kWh/m² per year	416 kWh/m² per year	
Carbon dioxide emissions	6.7 tonnes per year	5.1 tonnes per year	
Lighting	£35 per year	£35 per year	
Heating	£856 per year	£672 per year	
Hot water	£91 per year	£74 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.



The address and energy rating of the dwelling in this EPC may be given to EST to provide information on financial help for improving its energy performance.

For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **www.energysavingtrust.org.uk/myhome** 

### 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, 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/002970		
Assessor's name:	Jonathan Mark Watson		
Company name/trading name:	Bureside Energy Assessors		
Address:	Sycamore Farm, Ramsgate Street, Edgefield, Melton Constable, Norfolk, NR24 2AY		
Phone number:	01263 587341		
Fax number:	01263 587767		
E-mail address:	mark.watson@bureside.co.uk		
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 as above. You can get contact details of the accreditation scheme from their website at <u>www.elmhurstenergy.co.uk</u> 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 Government's 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
- Learn more about energy efficiency and reducing energy consumption

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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.

Elements	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Solid brick, as built, no insulation (assumed)	Very poor	Very poor
Roof	Pitched, no insulation (assumed)	Very poor	Very poor
Floor	(other premises below)	-	-
Windows	Fully double glazed	Average	Average
Main heating	Boiler and radiators, mains gas	Good	Good
Main heating controls	Programmer, no room thermostat	Very poor	Very poor
Secondary heating	None	-	-
Hot water	From main system	Good	Good
Lighting	Low energy lighting in all fixed outlets	Very good	Very good
Current energy efficiency rating E 40		E 40	
Current environn	nental impact (CO2) rating		F 34

## 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.

	Typical savings	Performance ratings after improvement				
Lower cost measures (up to £500)	per year	Energy efficiency	Environmental impact			
1 Upgrade heating controls	£106	E 46	E 39			
Sub-total	£106					
Higher cost measures (over £500)						
2 Replace boiler with Band A condensing boiler	£96	E 52	E 45			
Total	£202					
Potential energy efficiency rating		E 52				
Potential environmental impact (CO2) rating			E 45			

### 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 energy 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 Heating controls (room thermostat and thermostatic radiator valves)

A room thermostat will increase the efficiency of the heating system by enabling the boiler to switch off when no heat is required; this will reduce the amount of energy used and lower fuel bills. 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 provided internal doors are kept closed. 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 thermostatic radiator valves and a fully pumped system with the pump and the boiler turned off by the room thermostat. Thermostatic 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 enable the boiler to switch off when no heat is required.

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

#### 2 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, but there may be exceptional circumstances making this impractical. Condensing boilers need a drain for the condensate which limits their location; remember this when considering remodelling the room containing the existing boiler even if the latter is to be retained for the time being (for example a kitchen makeover). 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 schemeą, and can therefore self-certify the work for Building Regulation compliance. Ask a qualified heating engineer to explain the options.

### 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.
- 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.