

# Energy Performance Certificate

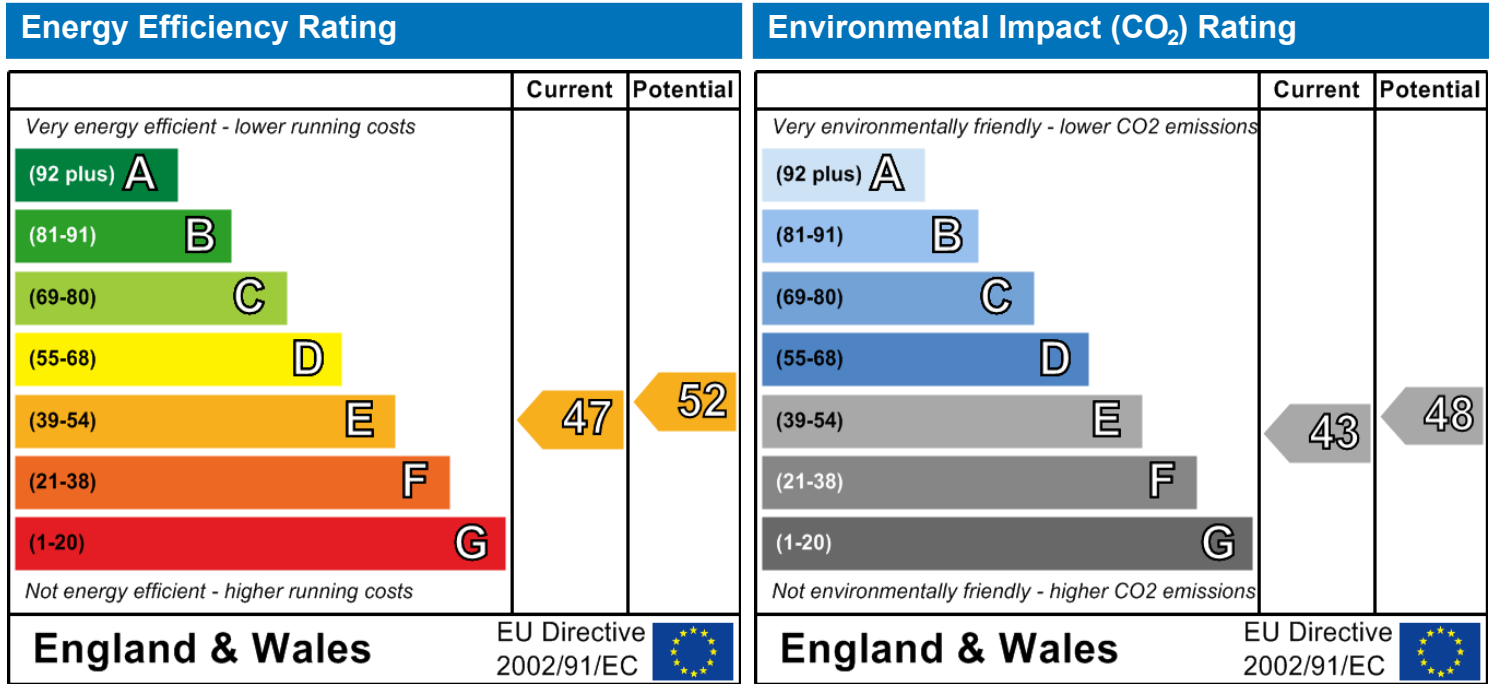


Spye House  
Main Road  
West Keal  
SPILSBY  
PE23 4BE

Dwelling type:  
Date of assessment:  
Date of certificate:  
Reference number:  
Type of assessment:  
Total floor area:

Detached house  
10 June 2011  
10 June 2011  
8829-6426-8680-8770-7992  
RdSAP, existing dwelling  
151 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.

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               | 280 kWh/m <sup>2</sup> per year | 252 kWh/m <sup>2</sup> per year |
| Carbon dioxide emissions | 8.7 tonnes per year             | 7.7 tonnes per year             |
| Lighting                 | £118 per year                   | £67 per year                    |
| Heating                  | £1,468 per year                 | £1,358 per year                 |
| Hot water                | £154 per year                   | £136 per year                   |

**You could save up to £178 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.



Remember to look for the Energy Saving Trust 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 Stroma Certification, to a scheme authorised by the Government. This certificate was produced using the RdSAP 2009 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: STRO005168  
Assessor's name: Stephen Cussons  
Company name/trading name: Vibrant Energy Matters Ltd  
Address: 2 Foxes Lane, Oakdale Business Park  
Blackwood, NP12 4AB  
Phone number: 0845 0945 192  
Fax number: 0845 0945 196  
E-mail address: [epcquery@vibrantenergymatters.co.uk](mailto:epcquery@vibrantenergymatters.co.uk)  
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.stroma.com](http://www.stroma.com) 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 50).

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](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 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 hold 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.



Click [www.epcadviser.direct.gov.uk](http://www.epcadviser.direct.gov.uk) our online tool which uses information from this EPC to show you how to save money on your fuel bills.

Further information about Energy Performance Certificates can be found under Frequently Asked Questions at [www.epcregister.com](http://www.epcregister.com)

## 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. The indicative costs are representative for most properties but may not apply in a particular case.

| Lower cost measures   | Indicative Cost | Typical savings per year | Ratings after improvement |                      |
|---|-----------------|--------------------------|---------------------------|----------------------|
|   |                 |                          | Energy efficiency         | Environmental impact |
| 1 Low energy lighting for all fixed outlets                   | £38             | £40                      | E 48                      | E 44                 |
| 2 Upgrade heating controls                                    | £350 - £450     | £86                      | E 51                      | E 47                 |
| Sub-total   |                 | £126                     |                           |                      |
| <b>Higher cost measures</b>                                   |                 |                          |                           |                      |
| 3 Replace boiler with new condensing boiler                   | £1,500 - £3,500 | £52                      | E 52                      | E 48                 |
| Total   |                 | £178                     |                           |                      |
| <b>Potential energy efficiency rating</b>                     |                 |                          | <b>E 52</b>               |                      |
| <b>Potential environmental impact (CO<sub>2</sub>) rating</b> |                 |                          | <b>E 48</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. However you should check the conditions in any covenants, planning conditions, warranties or sale contracts. The indicative costs are representative for most properties but may not apply in a particular case.

|  |                   |      |             |      |
|--|-------------------|------|-------------|------|
| 4 Solar water heating  | £4,000 - £6,000   | £48  | E 54        | E 50 |
| 5 50 mm internal or external wall insulation                 | £5,500 - £14,500  | £422 | D 67        | D 63 |
| 6 Solar photovoltaic panels, 2.5 kWp                         | £11,000 - £20,000 | £214 | C 73        | C 70 |
| 7 Wind turbine   | £1,500 - £4,000   | £77  | C 76        | C 72 |
| <b>Enhanced energy efficiency rating</b>                     |                   |      | <b>C 76</b> |      |
| <b>Enhanced environmental impact (CO<sub>2</sub>) rating</b> |                   |      | <b>C 72</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 reduction in carbon dioxide (CO<sub>2</sub>) emissions.

## 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; 1 star means least efficient and 5 stars means most efficient. 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.

| Element               | Description                                    | Current Performance |               |
|-----------------------|--|---------------------|---------------|
|                       |  | Energy efficiency   | Environmental |
| Walls                 | Solid brick, as built, no insulation (assumed) | ★☆☆☆☆               | ★☆☆☆☆         |
|                       | Cavity wall, as built, insulated (assumed)     | ★★★★☆               | ★★★★☆         |
| Roof                  | Pitched, 250 mm loft insulation                | ★★★★☆               | ★★★★☆         |
| Floor                 | Suspended, no insulation (assumed)             | -                   | -             |
|                       | To unheated space, insulated (assumed)         | -                   | -             |
| Windows               | Fully double glazed                            | ★★★★☆               | ★★★★☆         |
| Main heating          | Boiler and radiators, oil                      | ★★★☆☆               | ★★★☆☆         |
| Main heating controls | Programmer, TRVs and bypass                    | ★★★☆☆               | ★★★☆☆         |
| Secondary heating     | Room heaters, wood logs                        | -                   | -             |
| Hot water             | From main system                               | ★★★☆☆               | ★★★☆☆         |
| Lighting              | Low energy lighting in 25% of fixed outlets    | ★★★☆☆               | ★★★☆☆         |

**Current energy efficiency rating** **E 47**

**Current environmental impact (CO<sub>2</sub>) rating** **E 43**

## Low and zero carbon energy sources

The following low or zero carbon energy sources are provided for this home:

- Biomass secondary heating

## Renewable Heat Incentive

You could receive 20 years of RHI payments and help reduce carbon emissions by replacing your existing heating system with one that generates renewable heat and, where appropriate, having your loft insulated to 150 mm and cavity walls filled. The energy required for space and water heating shown below would form the basis of the payments. The Department of Energy and Climate Change has up-to date information on technologies supported and the support levels at [www.decc.gov.uk/rhi](http://www.decc.gov.uk/rhi).

This dwelling: Loft insulation 150 mm or more, Cavity walls insulated

| Heat demand for RHI          | Existing dwelling | With loft insulation only | With cavity insulation only | With loft and cavity insulation |
|------------------------------|-------------------|---------------------------|-----------------------------|---------------------------------|
| Space heating (kWh per year) | 23,212            | -                         | -                           | -                               |
| Water heating (kWh per year) | 2,636             |                           |                             |                                 |

## 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

These measures are relatively inexpensive to install and are worth tackling first. The indicative costs of measures included earlier in this EPC include the costs of professional installation in most cases. Some of the cost effective measures below may be installed as DIY projects which will reduce the cost. 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

Low energy light bulbs last up to 12 times longer than ordinary ones and reduce lighting costs.

#### 2 Heating controls (room thermostat)

The heating system should have a room thermostat to enable the boiler to switch off when no heat is required. The thermostatic radiator valve should be removed from any radiator in the same room as the thermostat. Ask a heating engineer to do this work.

### Higher cost measures

#### 3 New 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. Building Regulations apply to this work.

## 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 Solar water heating

A solar water heating panel uses the sun to pre-heat the hot water supply, significantly reducing demand on the heating system to provide hot water and hence save fuel and money. You could be eligible for Renewable Heat Incentive payments which could appreciably increase the savings beyond those shown on your EPC, provided that both the product and the installer are certified by the Microgeneration Certification Scheme (or equivalent). Details of local MCS installers are available at [www.microgenerationcertification.org](http://www.microgenerationcertification.org).

#### 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. Further information can be obtained from the National Insulation Association ([www.nationalinsulationassociation.org.uk](http://www.nationalinsulationassociation.org.uk)).

## 6 Solar photovoltaic (PV) panels

A solar PV system converts light directly into electricity via panels placed on the roof and can be used throughout the home. Building Regulations apply to this work and planning restrictions may apply. You could be eligible for a Feed-in Tariff which could appreciably increase the savings beyond those shown on your EPC, provided that both the product and the installer are certified by the Microgeneration Certification Scheme (or equivalent). Details of local MCS installers are available at [www.microgenerationcertification.org](http://www.microgenerationcertification.org).

## 7 Wind turbine

A wind turbine provides electricity from wind energy. This electricity can be used throughout the home. Building Regulations apply to this work and planning restrictions may apply. Wind turbines are not suitable for all properties. The system's effectiveness depends on local wind speeds and the presence of nearby obstructions, and a site survey should be undertaken by an accredited installer. You could be eligible for a Feed-in Tariff which could appreciably increase the savings beyond those shown on your EPC, provided that both the product and the installer are certified by the Microgeneration Certification Scheme (or equivalent). Details of local MCS installers are available at [www.microgenerationcertification.org](http://www.microgenerationcertification.org).

## 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.
- 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.
- 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.
- Check the draught-proofing of windows and replace it if appropriate.
- If you have unused open chimneys consider blocking them off (making provision for a ventilation opening and a cowl on top of the chimney to avoid dampness).

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).