

Energy Performance Certificate


The Barn, Barrington Farm, Brentwood Road, Orsett, GRAYS, RM16 3BD

Dwelling type: Semi-detached house **Reference number:** 2848-8005-7202-4126-8980
Date of assessment: 24 February 2016 **Type of assessment:** RdSAP, existing dwelling
Date of certificate: 27 February 2016 **Total floor area:** 306 m²

Use this document to:

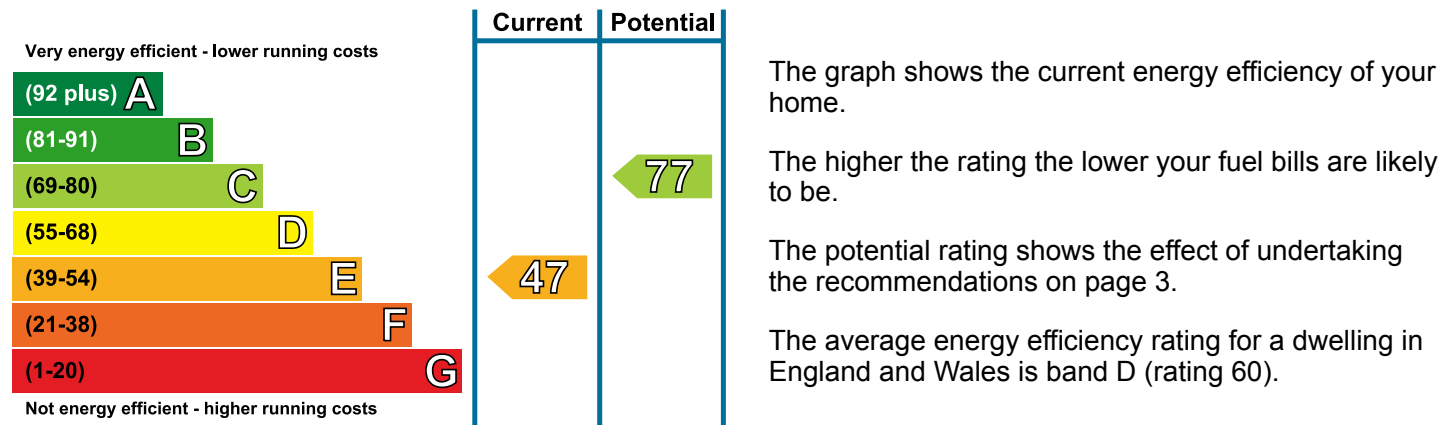
- Compare current ratings of properties to see which properties are more energy efficient
- Find out how you can save energy and money by installing improvement measures

Estimated energy costs of dwelling for 3 years:	£ 10,020
Over 3 years you could save	£ 3,468




Estimated energy costs of this home			
	Current costs	Potential costs	Potential future savings
Lighting	£ 534 over 3 years	£ 357 over 3 years	
Heating	£ 8,850 over 3 years	£ 5,766 over 3 years	
Hot Water	£ 636 over 3 years	£ 429 over 3 years	
Totals	£ 10,020	£ 6,552	

These figures show how much the average household would spend in this property for heating, lighting and hot water. This excludes energy use for running appliances like TVs, computers and cookers, and any electricity generated by microgeneration.

Energy Efficiency Rating



Top actions you can take to save money and make your home more efficient

Recommended measures	Indicative cost	Typical savings over 3 years	Available with Green Deal
1 Increase loft insulation to 270 mm	£100 - £350	£ 315	
2 Internal or external wall insulation	£4,000 - £14,000	£ 786	
3 Floor insulation (solid floor)	£4,000 - £6,000	£ 585	

See page 3 for a full list of recommendations for this property.

To find out more about the recommended measures and other actions you could take today to save money, visit www.direct.gov.uk/savingenergy or call 0300 123 1234 (standard national rate). The Green Deal may allow you to make your home warmer and cheaper to run at no up-front cost.

Summary of this home's energy performance related features

Element	Description	Energy Efficiency
Walls	Solid brick, with internal insulation	★★★★☆
	Solid brick, as built, no insulation (assumed)	★☆☆☆☆
Roof	Pitched, 100 mm loft insulation	★★★★☆
	Pitched, no insulation (assumed)	★☆☆☆☆
Floor	Solid, no insulation (assumed)	—
Windows	Fully double glazed	★★★★☆
Main heating	Boiler and radiators, mains gas	★★★★☆
Main heating controls	Programmer, room thermostat and TRVs	★★★★☆
Secondary heating	Room heaters, dual fuel (mineral and wood)	—
Hot water	From main system	★★★★☆
Lighting	Low energy lighting in 50% of fixed outlets	★★★★☆

Current primary energy use per square metre of floor area: 286 kWh/m² per year

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.

Low and zero carbon energy sources

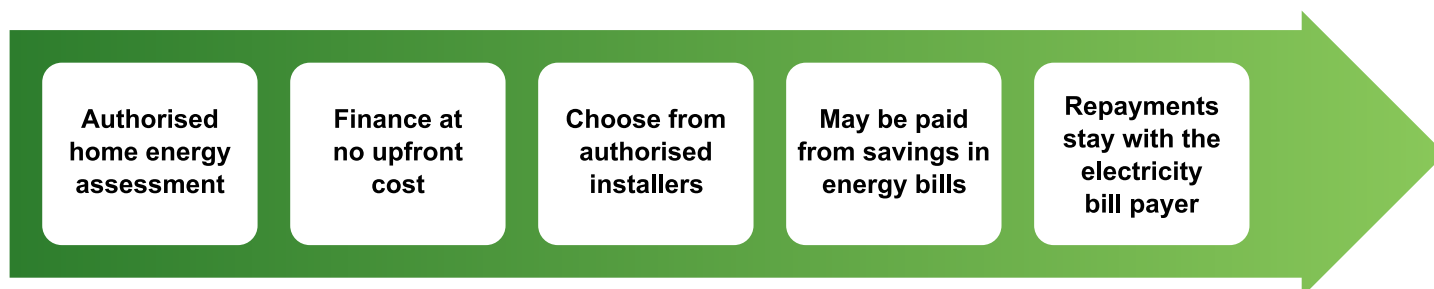
Low and zero carbon energy sources are sources of energy that release either very little or no carbon dioxide into the atmosphere when they are used. Installing these sources may help reduce energy bills as well as cutting carbon. There are none provided for this home.

Opportunity to benefit from a Green Deal on this property

The Green Deal may enable owners and occupiers to make improvements to their property to make it more energy efficient. Under a Green Deal, the cost of the improvements is repaid over time via a credit agreement. Repayments are made through a charge added to the electricity bill for the property. To see which improvements are recommended for this property, please turn to page 3. You can choose which improvements you want to install and ask for a quote from an authorised Green Deal provider. They will organise installation by an authorised Green Deal installer. If you move home, the responsibility for paying the Green Deal charge under the credit agreement passes to the new electricity bill payer.



For householders in receipt of income-related benefits, additional help may be available.














To find out more, visit www.direct.gov.uk/savingenergy or call 0300 123 1234.



Recommendations

The measures below will improve the energy performance of your dwelling. The performance ratings after improvements listed below are cumulative; that is, they assume the improvements have been installed in the order that they appear in the table. Further information about the recommended measures and other simple actions you could take today to save money is available at www.direct.gov.uk/savingenergy. Before installing measures, you should make sure you have secured the appropriate permissions, where necessary. Such permissions might include permission from your landlord (if you are a tenant) or approval under Building Regulations for certain types of work.

Measures with a green tick  are likely to be fully financed through the Green Deal since the cost of the measures should be covered by the energy they save. Additional support may be available for homes where solid wall insulation is recommended. If you want to take up measures with an orange tick , be aware you may need to contribute some payment up-front.

Recommended measures	Indicative cost	Typical savings per year	Rating after improvement	Green Deal finance
Increase loft insulation to 270 mm	£100 - £350	£ 105	 E49	
Internal or external wall insulation	£4,000 - £14,000	£ 262	 E53	
Floor insulation (solid floor)	£4,000 - £6,000	£ 195	 D56	
Low energy lighting for all fixed outlets	£50	£ 46	 D57	
Replace boiler with new condensing boiler	£2,200 - £3,000	£ 549	 D65	
Solar photovoltaic panels, 2.5 kWp	£5,000 - £8,000	£ 287	 C69	
Wind turbine	£15,000 - £25,000	£ 548	 C77	

Alternative measures

There are alternative measures below which you could also consider for your home.

- Biomass boiler (Exempted Appliance if in Smoke Control Area)
- Air or ground source heat pump
- Micro CHP

Choosing the right package

Visit 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. You can use this tool to personalise your Green Deal package.

Directgov

Public services all in one place

Green Deal package	Typical annual savings
Loft insulation	Total savings of £955
Internal or external wall insulation	
Condensing boiler	
Electricity/gas/other fuel savings	£-7 / £894 / £68

You could finance this package of measures under the Green Deal. It could **save you £955 a year** in energy costs, based on typical energy use. Some or all of this saving would be recouped through the charge on your bill.

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. You can get contact details of the accreditation scheme at www.stroma.com, together with details of their procedures for confirming authenticity of a certificate and for making a complaint. A copy of this EPC has been lodged on a national register. It will be publicly available and some of the underlying data may be shared with others for compliance and marketing of relevant energy efficiency information. The Government may use some of this data for research or statistical purposes. Green Deal financial details that are obtained by the Government for these purposes will not be disclosed to non-authorized recipients. The current property owner and/or tenant may opt out of having their information shared for marketing purposes.

Assessor's accreditation number: STRO001406
Assessor's name: Michael Payne
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Related party disclosure: No related party

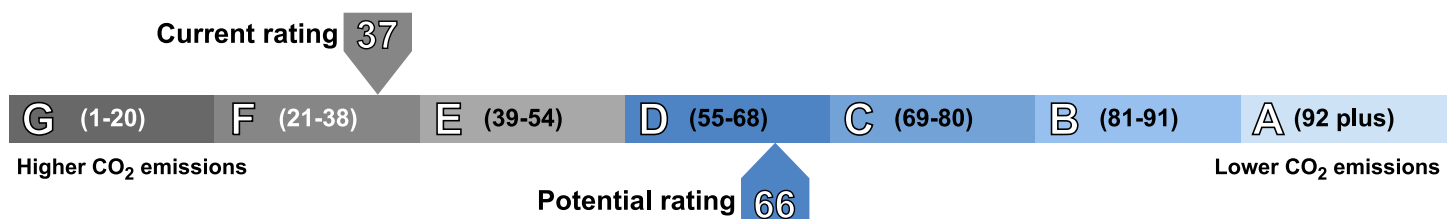
Further information about Energy Performance Certificates can be found under Frequently Asked Questions at www.epcregister.com.

About the impact of buildings on the environment

One of the biggest contributors to global warming is carbon dioxide. The energy we use for heating, lighting and power in homes produces over a quarter of the UK's carbon dioxide emissions.

The average household causes about 6 tonnes of carbon dioxide every year. Based on this assessment, your home currently produces approximately 16 tonnes of carbon dioxide every year. Adopting the recommendations in this report can reduce emissions and protect the environment. If you were to install these recommendations you could reduce this amount by 8.6 tonnes per year. You could reduce emissions even more by switching to renewable energy sources.

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.



Your home's heat demand

For most homes, the vast majority of energy costs derive from heating the home. Where applicable, this table shows the energy that could be saved in this property by insulating the loft and walls, based on typical energy use (shown within brackets as it is a reduction in energy use).

Heat demand	Existing dwelling	Impact of loft insulation	Impact of cavity wall insulation	Impact of solid wall insulation
Space heating (kWh per year)	39,001	(4,422)	(359)	(3,765)
Water heating (kWh per year)	3,057			