

1, Penn Close, Orsett, GRAYS, RM16 3ED

Dwelling type: Detached house
Date of assessment: 15 September 2017
Date of certificate: 16 September 2017

Reference number: 8283-7021-5640-1445-1992
Type of assessment: RdSAP, existing dwelling
Total floor area: 162 m²

Use this document to:

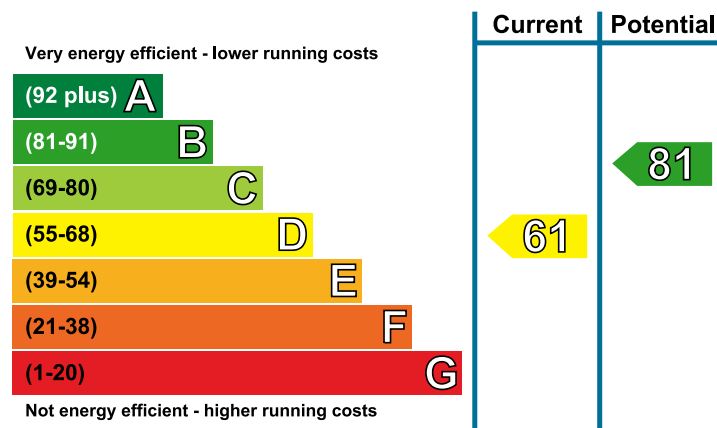
- Compare current ratings of properties to see which properties are more energy efficient
- Find out how you can save energy and money by installing improvement measures

Estimated energy costs of dwelling for 3 years:	£ 4,239
Over 3 years you could save	£ 1,515

Estimated energy costs of this home			
	Current costs	Potential costs	Potential future savings
Lighting	£ 333 over 3 years	£ 255 over 3 years	
Heating	£ 3,045 over 3 years	£ 2,235 over 3 years	
Hot Water	£ 861 over 3 years	£ 234 over 3 years	
Totals	£ 4,239	£ 2,724	

These figures show how much the average household would spend in this property for heating, lighting and hot water and is not based on energy used by individual households. This excludes energy use for running appliances like TVs, computers and cookers, and electricity generated by microgeneration.

Energy Efficiency Rating



The graph shows the current energy efficiency of your home.

The higher the rating the lower your fuel bills are likely to be.

The potential rating shows the effect of undertaking the recommendations on page 3.

The average energy efficiency rating for a dwelling in England and Wales is band D (rating 60).

The EPC rating shown here is based on standard assumptions about occupancy and energy use and may not reflect how energy is consumed by individual occupants.

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 Floor insulation (solid floor)	£4,000 - £6,000	£ 285	
2 Increase hot water cylinder insulation	£15 - £30	£ 180	
3 Low energy lighting for all fixed outlets	£40	£ 63	

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.gov.uk/energy-grants-calculator or call 0300 123 1234 (standard national rate). The Green Deal may enable you to make your home warmer and cheaper to run.

Summary of this home's energy performance related features

Element	Description	Energy Efficiency
Walls	Cavity wall, as built, insulated (assumed)	★★★★☆
	Timber frame, as built, insulated (assumed)	★★★★☆
Roof	Pitched, insulated (assumed)	★★★☆☆
	Flat, insulated (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	None	—
Hot water	From main system	★★★☆☆
Lighting	Low energy lighting in 69% of fixed outlets	★★★★☆

Current primary energy use per square metre of floor area: 235 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.

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)	14,609	(741)	N/A	N/A
Water heating (kWh per year)	4,288			

You could receive Renewable Heat Incentive (RHI) payments and help reduce carbon emissions by replacing your existing heating system with one that generates renewable heat, subject to meeting minimum energy efficiency requirements. The estimated energy required for space and water heating will form the basis of the payments. For more information, search for the domestic RHI on the www.gov.uk website.

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.gov.uk/energy-grants-calculator. 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  may be supported through the Green Deal finance. If you want to take up measures with an orange tick  through Green Deal finance, 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
Floor insulation (solid floor)	£4,000 - £6,000	£ 95	 D64	
Increase hot water cylinder insulation	£15 - £30	£ 60	 D65	
Low energy lighting for all fixed outlets	£40	£ 21	 D66	
Replace boiler with new condensing boiler	£2,200 - £3,000	£ 285	 C73	
Solar water heating	£4,000 - £6,000	£ 44	 C74	
Solar photovoltaic panels, 2.5 kWp	£5,000 - £8,000	£ 294	 B81	

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

Opportunity to benefit from a Green Deal on this property

Green Deal Finance allows you to pay for some of the cost of your improvements in instalments under a Green Deal Plan (note that this is a credit agreement, but with instalments being added to the electricity bill for the property). The availability of a Green Deal Plan will depend upon your financial circumstances. There is a limit to how much Green Deal Finance can be used, which is determined by how much energy the improvements are estimated to **save** for a 'typical household'.

You may be able to obtain support towards repairs or replacements of heating systems and/or basic insulation measures, if you are in receipt of qualifying benefits or tax credits. To learn more about this scheme and the rules about eligibility, call the Energy Saving Advice Service on **0300 123 1234** for England and Wales.

About this document and the data in it

This document has been produced following an energy assessment undertaken by a qualified Energy Assessor, accredited by Elmhurst Energy Systems Ltd. You can obtain contact details of the Accreditation Scheme at www.elmhurstenergy.co.uk.

A copy of this certificate has been lodged on a national register as a requirement under the Energy Performance of Buildings Regulations 2012 as amended. It will be made available via the online search function at www.epcregister.com. The certificate (including the building address) and other data about the building collected during the energy assessment but not shown on the certificate, for instance heating system data, will be made publicly available at www.opendatacommunities.org.

This certificate and other data about the building may be shared with other bodies (including government departments and enforcement agencies) for research, statistical and enforcement purposes. For further information about how data about the property are used, please visit www.epcregister.com. To opt out of having information about your building made publicly available, please visit www.epcregister.com/optout.

Assessor's accreditation number: EES/007465
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Related party disclosure: No related party

There is more information in the guidance document *Energy Performance Certificates for the marketing, sale and let of dwellings* available on the Government website at: www.gov.uk/government/collections/energy-performance-certificates. It explains the content and use of this document, advises on how to identify the authenticity of a certificate and how to make a complaint.

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 6.7 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 3.6 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 based on standardised assumptions about occupancy and energy use. The higher the rating the less impact it has on the environment.

