

Energy Performance Report

52, Station Road
Ystradgynlais
SWANSEA
SA9 1NX

Dwelling type: Semi-detached house
Date of assessment: 28 October 2016
Reference number: 000497
Type of assessment: RdSAP, existing dwelling
Total floor area: 88 m²

This document is not an Energy Performance Certificate (EPC) as required by the Energy Performance of Buildings Regulations.

Energy Efficiency Rating

	Current	Potential
Very energy efficient - lower running costs		
(92 plus) A		
(81-91) B		83
(69-80) C		
(55-68) D		
(39-54) E	49	
(21-38) F		
(1-20) G		
Not energy efficient - higher running costs		

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

	Current	Potential
Very environmentally friendly - lower CO ₂ emissions		
(92 plus) A		
(81-91) B		82
(69-80) C		
(55-68) D		
(39-54) E	44	
(21-38) F		
(1-20) G		
Not environmentally friendly - higher CO ₂ emissions		

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.

Estimated energy use, carbon dioxide (CO₂) emissions and fuel costs of this home

	Current	Potential
Energy use	392 kWh/m ² per year	121 kWh/m ² per year
Carbon dioxide emissions	6.1 tonnes per year	1.9 tonnes per year
Lighting	£59 per year	£59 per year
Heating	£1133 per year	£577 per year
Hot water	£167 per year	£74 per year

You could save up to £932 per year

The figures in the table above have been provided to enable a comparison of 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.

About this document

This Energy Performance Report was produced using the latest version of RdSAP software, provided by Elmhurst Energy Systems Ltd. RdSAP is the Government's authorised methodology for the assessment of existing dwellings for energy efficiency. The assessor who produced this report is detailed below:

Assessor's name:	Mr. Roger Roberts
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Related party disclosure:	Relative of the professional dealing with the property transaction

About the building's performance ratings

The ratings on the report provide a measure of the buildings 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.

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 report 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.

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 by the national calculation methodology; 1 star means least efficient and 5 stars means most efficient

Element	Description	Current performance	
		Energy Efficiency	Environmental
Walls	Granite or whinstone, as built, no insulation (assumed)	★☆☆☆☆ ★★★★☆	★☆☆☆☆ ★★★★☆
	Cavity wall, as built, partial insulation (assumed)		
Roof	Pitched, 100 mm loft insulation	★★★★☆☆	★★★★☆☆
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, electric	—	—
Hot water	From main system	★★★★☆☆☆	★★★★☆☆☆
Lighting	Low energy lighting in all fixed outlets	★★★★★★★	★★★★★★★
Air tightness	(not tested)	—	—
Current energy efficiency rating		E 49	
Current environmental impact (CO ₂) rating		E 44	
Thermal transmittance is a measure of the rate of heat loss through a building element; the lower the value the better the energy performance.			
Air permeability is a measure of the air tightness of a building; the lower the value the better the air tightness.			

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

	Indicative Cost	Typical savings per year	Ratings after improvement	
			Energy Efficiency	Environmental Impact
1 Increase loft insulation to 270 mm	£350	£36	E 51	E 46
2 Internal or external wall insulation	£14,000	£380	D 64	D 61
3 Floor insulation (solid floor)	£6,000	£46	D 66	D 63
4 Replace boiler with new condensing boiler	£3,000	£145	C 71	C 71
5 Solar water heating	£6,000	£42	C 73	C 73
6 Solar photovoltaic panels, 2.5 kWp	£8,000	£283	B 83	B 82

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 (CO₂) emissions.

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).

	Space Heating	Water Heating
Existing dwelling	14,715 kWh per year	2,643 kWh per year
Impact of loft insulation	(528) kWh per year	-
Impact of cavity wall insulation	(269) kWh per year	-
Impact of solid wall insulation	(5,556) kWh per year	-

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. The papers you are given by the builder and the warranty provider will help you in this.
- 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.