

21 Eastside Quarter, Maelfa, Llanedeyrn, CARDIFF, CF23 9PN

**Dwelling type:** Semi-detached house  
**Date of assessment:** 07 September 2017  
**Date of certificate:** 07 September 2017  
**Reference number:** 8103-7331-4140-0923-0902  
**Type of assessment:** SAP, new dwelling  
**Total floor area:** 51 m<sup>2</sup>

## 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

<b>Estimated energy costs of dwelling for 3 years:</b>	<b>£ 837</b>
<b>Over 3 years you could save</b>	<b>£ 81</b>

Estimated energy costs of this home			
	Current costs	Potential costs	Potential future savings
Lighting	£ 120 over 3 years	£ 120 over 3 years	
Heating	£ 531 over 3 years	£ 531 over 3 years	
Hot Water	£ 186 over 3 years	£ 105 over 3 years	
<b>Totals</b>	<b>£ 837</b>	<b>£ 756</b>	

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

<p>Very energy efficient - lower running costs</p> <p>(92 plus) <b>A</b></p> <p>(81-91) <b>B</b></p> <p>(69-80) <b>C</b></p> <p>(55-68) <b>D</b></p> <p>(39-54) <b>E</b></p> <p>(21-38) <b>F</b></p> <p>(1-20) <b>G</b></p> <p>Not energy efficient - higher running costs</p>	<p><b>Current</b></p> <p>82</p>	<p><b>Potential</b></p> <p>97</p>	<p>The graph shows the current energy efficiency of your home.</p> <p>The higher the rating the lower your fuel bills are likely to be.</p> <p>The potential rating shows the effect of undertaking the recommendations on page 3.</p> <p>The average energy efficiency rating for a dwelling in England and Wales is band D (rating 60).</p> <p>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.</p>
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## Actions you can take to save money and make your home more efficient

Recommended measures	Indicative cost	Typical savings over 3 years
1 Solar water heating	£4,000 - £6,000	£ 81
2 Solar photovoltaic panels, 2.5 kWp	£5,000 - £8,000	£ 912

## Summary of this home's energy performance related features

Element	Description	Energy Efficiency
Walls	Average thermal transmittance 0.21 W/m <sup>2</sup> K	★★★★★
Roof	Average thermal transmittance 0.11 W/m <sup>2</sup> K	★★★★★
Floor	Average thermal transmittance 0.18 W/m <sup>2</sup> K	★★★★★
Windows	High performance glazing	★★★★★
Main heating	Boiler and radiators, mains gas	★★★★☆
Main heating controls	Time and temperature zone control	★★★★★
Secondary heating	None	—
Hot water	From main system	★★★★☆
Lighting	Low energy lighting in all fixed outlets	★★★★★
Air tightness	Air permeability 6.1 m <sup>3</sup> /h.m <sup>2</sup> (as tested)	★★★★☆

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.

Current primary energy use per square metre of floor area: 100 kWh/m<sup>2</sup> per year

## 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

This table shows the energy used for space and water heating by an average household in this property.



### Heat demand

Space heating (kWh per year)	1,693
Water heating (kWh per year)	1,349

If you built your own home and, as part of its construction, you installed a renewable heating system, you could receive Renewable Heat Incentive (RHI) payments. 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](http://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. To receive advice on what measures you can take to reduce your energy bills, visit [www.simpleenergyadvice.org.uk](http://www.simpleenergyadvice.org.uk) or call freephone 0800 444202. 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.

Recommended measures	Indicative cost	Typical savings per year	Rating after improvement
Solar water heating	£4,000 - £6,000	£ 27	 B84
Solar photovoltaic panels, 2.5 kWp	£5,000 - £8,000	£ 304	 A97

## 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](http://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](http://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](http://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. Any personal data it contains will be processed in accordance with the General Data Protection Regulation and all applicable laws and regulations relating to the processing of personal data and privacy. For further information about this and how data about the property are used, please visit [www.epcregister.com](http://www.epcregister.com). To opt out of having information about your building made publicly available, please visit [www.epcregister.com/optout](http://www.epcregister.com/optout).

**Assessor's accreditation number:** EES/009195  
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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](http://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 0.9 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 1.2 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 (CO<sub>2</sub>) emissions based on standardised assumptions about occupancy and energy use. The higher the rating the less impact it has on the environment.

Current rating **86**

