Energy Performance Certificate (EPC)

Dwellings

Scotland

2 THE GLEBE, ISLE OF IONA, PA76 6SG

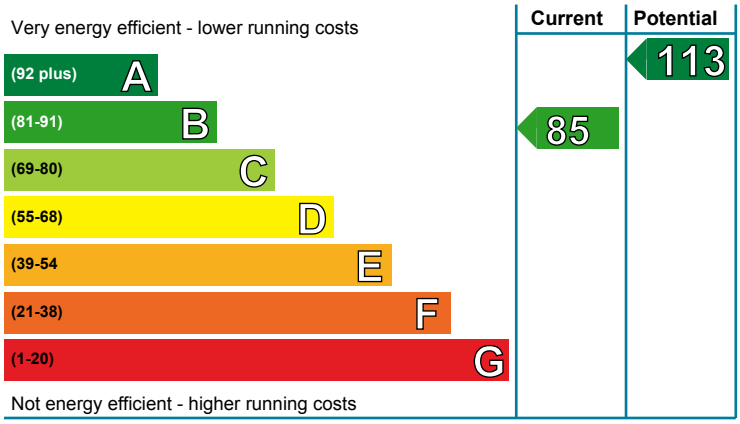
Dwelling type:	Semi-detached house	**Reference number:**	0132-3628-2463-9806-2985
Date of assessment:	08 June 2016	**Type of assessment:**	SAP, new dwelling
Date of certificate:	08 June 2016	**Approved Organisation:**	NES
Total floor area:	122 m²	**Main heating and fuel:**	Air source heat pump, radiators, electric
Primary Energy Indicator:	85 kWh/m²/year		

You can use this document to:

- **Compare current ratings of properties to see which are more energy efficient and environmentally friendly**
- **Find out how to save energy and money and also reduce CO_2 emissions by improving your home**

Estimated energy costs for your home for 3 years*	**£1,614**	See your recommendations report for more information

* based upon the cost of energy for heating, hot water, lighting and ventilation, calculated using standard assumptions

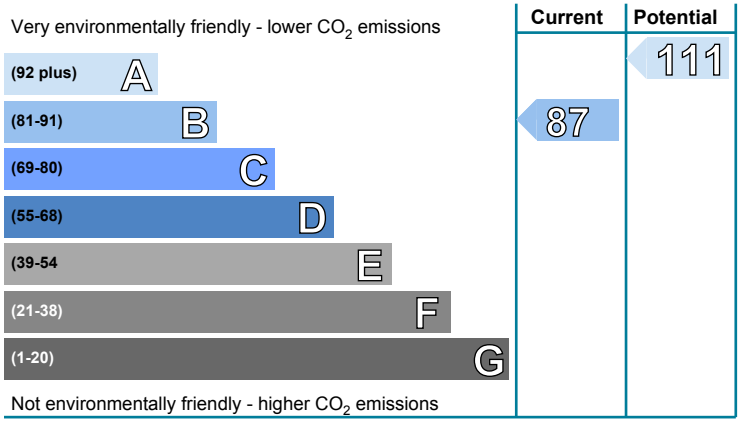


Energy Efficiency Rating

This graph shows the current efficiency of your home, taking into account both energy efficiency and fuel costs. The higher this rating, the lower your fuel bills are likely to be.

Your current rating is **band B (85)**. The average rating of EPCs in Scotland is **band D (61).**

The potential rating shows the effect of undertaking all of the improvement measures listed within your recommendations report.



Environmental Impact (CO_2) Rating

This graph shows the effect of your home on the environment in terms of carbon dioxide (CO_2) emissions. The higher the rating, the less impact it has on the environment.

Your current rating is **band B (87)**. The average rating of EPCs in Scotland is **band D (59).**

The potential rating shows the effect of undertaking all of the improvement measures listed within your recommendations report.

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	£210.00
2 Solar photovoltaic (PV) panels	£5,000 - £8,000	£873.00
3 Wind turbine	£15,000 - £25,000	£1770.00

A full list of recommended improvement measures for your home, together with more information on potential cost and savings and advice to help you carry out improvements can be found in your recommendations report.

THIS PAGE IS THE ENERGY PERFORMANCE CERTIFICATE WHICH MUST BE AFFIXED TO THE DWELLING AND NOT BE REMOVED UNLESS IT IS REPLACED WITH AN UPDATED CERTIFICATE

Summary of the energy performance related features of this home

This table sets out the results of the survey which lists the current energy-related features of this home. Each element is assessed by the national calculation methodology; 1 star = very poor (least efficient), 2 stars = poor, 3 stars = average, 4 stars = good and 5 stars = very good (most efficient). See the addendum section on the last page of this report for further information relating to items in the table.

Element	Description	Energy Efficiency	Environmental
Walls	Average thermal transmittance 0.19 W/m²K	★★★★★	★★★★★
Roof	Average thermal transmittance 0.16 W/m²K	★★★★☆	★★★★☆
Floor	Average thermal transmittance 0.12 W/m²K	★★★★★	★★★★★
Windows	High performance glazing	★★★★★	★★★★★
Main heating	Air source heat pump, radiators, electric	★★★★★	★★★★★
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 4.9 m³/h.m² (assumed)	★★★★☆	★★★★☆

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.

The energy efficiency rating of your home

Your Energy Efficiency Rating is calculated using the standard UK methodology, SAP. This calculates energy used for heating, hot water, lighting and ventilation and then applies fuel costs to that energy use to give an overall rating for your home. The rating is given on a scale of 1 to 100. Other than the cost of fuel for electrical appliances and for cooking, a building with a rating of 100 would cost almost nothing to run.

As we all use our homes in different ways, the energy rating is calculated using standard occupancy assumptions which may be different from the way you use it. The rating also uses national weather information to allow comparison between buildings in different parts of Scotland.

The impact of your home on the environment

One of the biggest contributors to global warming is carbon dioxide. The energy we use for heating, lighting and power in our homes produces over a quarter of the UK's carbon dioxide emissions. Different fuels produce different amounts of carbon dioxide for every kilowatt hour (kWh) of energy used. The Environmental Impact Rating of your home is calculated by applying these 'carbon factors' for the fuels you use to your overall energy use.

The calculated emissions for your home are 14 kg CO_2/m²/yr.

The average Scottish household produces about 6 tonnes of carbon dioxide every year. Based on this assessment, heating and lighting this home currently produces approximately 1.8 tonnes of carbon dioxide every year. Adopting recommendations in this report can reduce emissions and protect the environment. If you were to install all of these recommendations this could reduce emissions by 3.1 tonnes per year. You could reduce emissions even more by switching to renewable energy sources.

Estimated energy costs for this home

	Current energy costs	Potential energy costs
Heating	£789 over 3 years	£789 over 3 years
Hot water	£561 over 3 years	£348 over 3 years
Lighting	£264 over 3 years	£264 over 3 years
Totals	**£1,614**	**£1,401**

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 such as TVs, computers and cookers, and the benefits of any electricity generated by this home (for example, from photovoltaic panels). The potential savings in energy costs show the effect of undertaking any low cost measures listed below.

Recommendations for improvement

The measures below will improve the energy and environmental performance of this 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 to take today to save money is available from the Home Energy Scotland hotline which can be contacted on 0808 808 2282. Before carrying out work, make sure that the appropriate permissions are obtained, where necessary. This may include permission from a landlord (if you are a tenant) or the need to get a Building Warrant for certain types of work.

Recommended measures		Indicative cost	Typical saving per year	Rating after improvement	
				Energy	Environment
1	Solar water heating	£4,000 - £6,000	£70	B 87	B 89
2	Solar photovoltaic panels, 2.5 kWp	£5,000 - £8,000	£291	A 95	A 96
3	Wind turbine	£15,000 - £25,000	£590	A 113	A 111

About the recommended measures to improve your home's performance rating

This section offers additional information and advice on the recommended improvement measures for your home

1 Solar water heating

A solar water heating panel, usually fixed to the roof, uses the sun to pre-heat the hot water supply. This can significantly reduce the demand on the heating system to provide hot water and hence save fuel and money. Planning permission might be required, building regulations generally apply to this work and a building warrant may be required, so it is best to check these with your local authority. 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.

2 Solar photovoltaic (PV) panels

A solar PV system is one which converts light directly into electricity via panels placed on the roof with no waste and no emissions. This electricity is used throughout the home in the same way as the electricity purchased from an energy supplier. Planning permission might be required, building regulations generally apply to this work and a building warrant may be required, so it is best to check with your local authority. The assessment does not include the effect of any Feed-in Tariff which could appreciably increase the savings that are shown on this EPC for solar photovoltaic panels, 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.

3 Wind turbine

A wind turbine provides electricity from wind energy. This electricity is used throughout the home in the same way as the electricity purchased from an energy supplier. 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. Planning permission might be required and building regulations generally apply to this work and a building warrant may be required, so it is best to check these with your local authority. The assessment does not include the effect of any Feed-in Tariff which could appreciably increase the savings that are shown on this EPC for a wind turbine, 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.

Low and zero carbon energy sources

Low and zero carbon (LZC) 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.

LZC energy sources present:

- Air source heat pump

Your home's heat demand

In this section, you can see how much energy you might need to heat your home and provide hot water.We have based these estimates on how an average home uses energy.These estimates may not reflect your actual energy use, which could be higher or lower.You might spend more money on heating and hot water if your house is less energy efficient.The table below shows the potential benefit of having your loft and walls insulated. Visit https://energysavingtrust.org.uk/energy-at-home for more information.

Heat demand

Space heating (kWh per year)	5,315
Water heating (kWh per year)	2,318

About this document

This Recommendations Report and the accompanying Energy Performance Certificate are valid for a maximum of ten years. These documents cease to be valid where superseded by a more recent assessment of the same building carried out by a member of an Approved Organisation.

The Energy Performance Certificate and this Recommendations Report for this building were produced following an energy assessment undertaken by an assessor accredited by NES (http://www.nesltd.co.uk/), an Approved Organisation Appointed by Scottish Ministers. The certificate has been produced under the Energy Performance of Buildings (Scotland) Regulations 2008 from data lodged to the Scottish EPC register. You can verify the validity of this document by visiting www.scottishepcregister.org.uk and entering the report reference number (RRN) printed at the top of this page.

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Related party disclosure:	No related party

If you have any concerns regarding the content of this report or the service provided by your assessor you should in the first instance raise these matters with your assessor and with the Approved Organisation to which they belong. All Approved Organisations are required to publish their complaints and disciplinary procedures and details can be found online at the web address given above.

Use of this energy performance information

Once lodged by your EPC assessor, this Energy Performance Certificate and Recommendations Report are available to view online at www.scottishepcregister.org.uk, with the facility to search for any single record by entering the property address. This gives everyone access to any current, valid EPC except where a property has a Green Deal Plan, in which case the report reference number (RRN) must first be provided. The energy performance data in these documents, together with other building information gathered during the assessment is held on the Scottish EPC Register and is available to authorised recipients, including organisations delivering energy efficiency and carbon reduction initiatives on behalf of the Scottish and UK governments. A range of data from all assessments undertaken in Scotland is also published periodically by the Scottish Government. Further information on these matters and on Energy Performance Certificates in general, can be found at www.gov.scot/epc.