

1 High Street, Low Town, AA0 0AA

Dwelling type: Semi-detached house
Date of assessment: 04 June 2012
Date of certificate: 17 July 2012
Total floor area: 147 m²

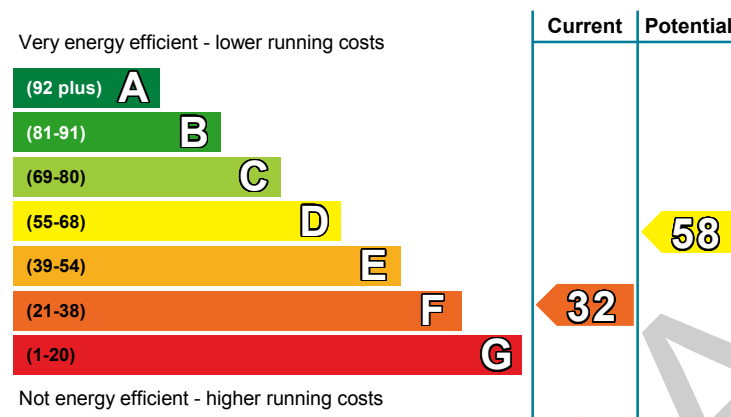
Reference number: 0000-0000-0000-0000-0000
Type of assessment: RdSAP, existing dwelling
Primary Energy Indicator: 540 kWh/m²/year
Main heating and fuel: Boiler and radiators, dual fuel (mineral and wood)

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 CO₂ emissions by improving your home

Estimated energy costs of your home for 3 years*	£9,468	See your recommendations report for more information
Over 3 years you could save*	£3,417	

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

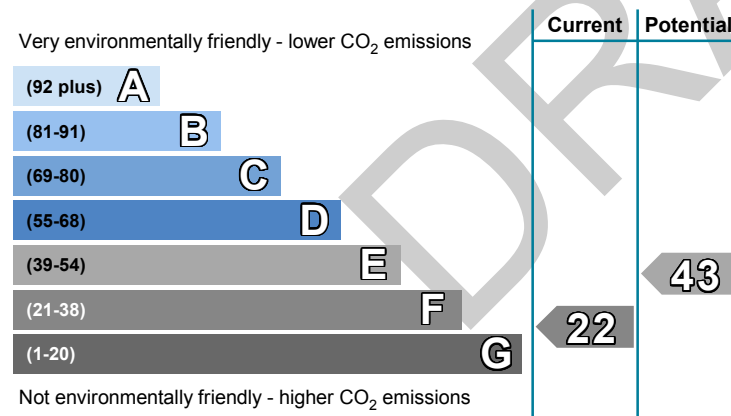


Energy Efficiency Rating

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 F (32)**. The average rating for a home in Scotland is **band G (0)**.

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



Environmental Impact (CO₂) Rating

This graph shows the effect of your home on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating, the less impact it has on the environment.


Your current rating is **band F (22)**. The average rating for a home in Scotland is **band G (0)**.

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

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 Room-in-roof insulation	£1,500 - £2,700	£879	✓
2 Cavity wall insulation	£500 - £1,500	£1365	✓
3 Floor insulation	£800 - £1,200	£612	✓

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.



When the Green Deal launches, it may allow you to make your home warmer and cheaper to run at no up-front cost. See your recommendations report for more details.

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). The assessment does not take into consideration the condition of an element and how well it is working. '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. 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	Cavity wall, as built, no insulation (assumed)	★★☆☆☆	★★☆☆☆
Roof	Pitched, 150 mm loft insulation Roof room(s), limited insulation	★★★★☆ ★★☆☆☆	★★★★☆ ★★☆☆☆
Floor	Solid, no insulation (assumed)	–	–
Windows	Mostly multiple glazing	★★★☆☆	★★★☆☆
Main heating	Boiler and radiators, dual fuel (mineral and wood)	★★☆☆☆	★☆☆☆☆
Main heating controls	Room thermostat only	★★☆☆☆	★★☆☆☆
Secondary heating	Room heaters, coal	–	–
Hot water	From main system, no cylinder thermostat	★☆☆☆☆	★☆☆☆☆
Lighting	Low energy lighting in 90% of fixed outlets	★★★★★	★★★★★

The energy efficiency rating of your home

Your Energy Efficiency Rating is calculated using the standard UK methodology, RdSAP. 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. However, to make information more relevant to your home, local weather data is used for to calculate your energy use, CO₂ emissions, running costs and the savings possible from making improvements.

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 average Scottish household produces about [value] tonnes of carbon dioxide every year. Based on this assessment, heating and lighting this home currently produces approximately 17 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 6.3 tonnes per year. You could reduce emissions even more by switching to renewable energy sources.


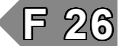


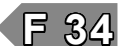


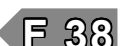


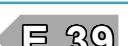







Estimated energy costs for this home



	Current energy costs	Potential energy costs	Potential future savings
Heating	£8,055 over 3 years	£5,073 over 3 years	
Hot water	£1,200 over 3 years	£765 over 3 years	
Lighting	£213 over 3 years	£213 over 3 years	
Totals:	£9,468	£6,051	

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 all of the recommended 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 your local Energy Saving Scotland advice centre which can be contacted on 0800 512 012. 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		Green Deal
			Energy	Environment	
1 Room-in-roof insulation	£1,500 - £2,700	£293			
2 Cavity wall insulation	£500 - £1,500	£455			
3 Floor insulation	£800 - £1,200	£204			
4 Add additional 80 mm jacket to hot water cylinder	£15 - £30	£43			
5 Hot water cylinder thermostat	£200 - £400	£38			
6 Upgrade heating controls	£350 - £450	£107			

Measures which have a green deal tick  are likely to be eligible for Green Deal finance plans based on indicative costs. Subsidy also may be available for some measures, such as solid wall insulation. Additional support may also be available for certain households in receipt of means tested benefits. Measures which have an orange tick  may need additional finance. To find out how you could use Green Deal finance to improve your property, visit www.energysavingtrust.org.uk/scotland or contact the Scottish Green Deal advice service at your local Energy Saving Scotland advice centre on 0800 512 012.

Alternative measures

There are alternative improvement measures which you could also consider for your home. It would be advisable to seek further advice and illustration of the benefits and costs of such measures.

- External insulation with cavity wall insulation
- Internal or external wall insulation

Choosing the right improvement package

For free and impartial advice on choosing suitable measures for your property, contact your local Energy Saving Scotland advice centre on 0800 512 012 or go to www.energysavingtrust.org.uk/scotland.



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 Room-in-roof insulation

Insulating roof rooms will significantly reduce heat loss; this will improve levels of comfort, reduce energy use and lower fuel bills. If it has a flat ceiling insulation can usually be added above the ceiling, and sloping ceilings and walls of roof rooms can be insulated using an internal lining board. Roof voids must have adequate ventilation to prevent dampness; seek advice about this if unsure. Further information about roof room insulation and details of local contractors can be obtained from the National Insulation Association (www.nationalinsulationassociation.org.uk). Building regulations generally apply to this work so it is best to check this with your local authority building standards department.

2 Cavity wall insulation

Cavity wall insulation, to fill the gap between the inner and outer layers of external walls with an insulating material, reduces heat loss; this will improve levels of comfort, reduce energy use and lower fuel bills. The insulation material is pumped into the gap through small holes that are drilled into the outer walls, and the holes are made good afterwards. As specialist machinery is used to fill the cavity, a professional installation company should carry out this work, and they should carry out a thorough survey before commencing work to ensure that this type of insulation is suitable for this home and its exposure. They should also provide a guarantee for the work and handle any building standards issues. Further information about cavity wall insulation and details of local installers can be obtained from the Building Standards Division's section of the Scottish Government website (www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards/publications/pubguide/cavitywallinsul) or the National Insulation Association (www.nationalinsulationassociation.org.uk).

3 Floor insulation

Insulation of a floor will significantly reduce heat loss; this will improve levels of comfort, reduce energy use and lower fuel bills. Suspended floors can often be insulated from below but must have adequate ventilation to prevent dampness; seek advice about this if unsure. Further information about floor insulation and details of local contractors can be obtained from the National Insulation Association (www.nationalinsulationassociation.org.uk). Building regulations generally apply to this work so it is best to check this with your local authority building standards department.

4 Hot water cylinder insulation

Increasing the thickness of existing insulation by adding an 80 mm cylinder jacket around the hot water cylinder will help maintain the water at the required temperature; this will reduce the amount of energy used and lower fuel bills. The jacket should be fitted over the top of the existing foam insulation and over any thermostat clamped to the cylinder. Hot water pipes from the hot water cylinder should also be insulated, using pre-formed pipe insulation of up to 50 mm thickness, or to suit the space available, for as far as they can be accessed to reduce losses in summer. All these materials can be purchased from DIY stores and installed by a competent DIY enthusiast.

5 Cylinder thermostat

A hot water cylinder thermostat enables the boiler to switch off when the water in the cylinder reaches the required temperature; this minimises the amount of energy that is used and lowers fuel bills. The thermostat is a temperature sensor that sends a signal to the boiler when the required temperature is reached. To be fully effective it needs to be sited in the correct position and hard wired in place, so it should be installed by a competent plumber or heating engineer. Building regulations apply to this work, so it is best to check with your local authority building standards department whether a building warrant will be required.

6 Heating controls (programmer and thermostatic radiator valves)

The heating system would benefit from a programmer to provide better comfort through automatic control of the system. A modern programmer can provide different time programmes for heating and hot water, allowing different time periods to be set for each; seven-day programmers also allow different heating and/or hot water patterns to be set for weekdays and weekends and holidays. Thermostatic radiator valves should also be installed, to allow the temperature of each room to be controlled to suit individual needs, adding to comfort and reducing heating bills provided internal doors are kept closed. For example, they can be set to be warmer in the living room and bathroom than in the bedrooms. Ask a competent heating engineer to install thermostatic radiator valves and a fully pumped system with the pump and the boiler turned off by the room thermostat. Thermostatic radiator valves should be fitted to every radiator except for the radiator in the same room as the room thermostat. Remember the room thermostat is needed to enable the boiler to switch off when no heat is required, thermostatic radiator valves on their own do not turn the boiler off. Building regulations generally apply to this work and a building warrant may be required, so it is best to obtain advice from your local authority building standards department and from a qualified heating engineer.

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:

- Solar photovoltaics

Your home's heat demand

For most homes, the vast majority of energy costs come from heating the home. Where applicable to your home, the table below shows the energy that could be saved by insulating the attic and walls, based upon the typical energy use for this building. Numbers shown in brackets are the reduction in energy use possible from each improvement measure.

Heat demand	Existing dwelling	Impact of loft insulation	Impact of cavity wall insulation	Impact of solid wall insulation
Space heating (kWh per year)	29,593	(357)	(4,848)	N/A
Water heating (kWh per year)	4,573			

Addendum

The assessment does not include any feed-in tariffs that may be applicable to this property.

This dwelling is a system built property or some of its walls are of non-conventional construction and requires further investigation to establish the type of construction, the type of wall insulation best suited (cavity insulation or internal/external insulation) and the savings it might deliver. Please contact your local Energy Saving Scotland advice centre on 0800 512 012 to find out more.

About this document

The Energy Performance Certificate and Recommendations Report for this dwelling were produced following an energy assessment undertaken by an assessor accredited by [approved organisation and website], 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.EPCscotland.co.uk and entering the report reference number (RRN) printed at the top of this page.

Assessor's name: [assessor name]
Assessor membership number: [membership number]
Company name/trading name: [company name]
Address: [company address]
[address continued]
Phone number: [phone]
E-mail address: [e-mail]
Related party disclosure: Owner or Director of the organisation dealing with the property transaction

This Certificate and report will be available to view online by any party with access to the report reference number and to organisations delivering energy efficiency and carbon reduction initiatives on behalf of the Scottish and UK Governments. If you are the current owner or occupier of this building and do not wish this data to be shared with third parties for purposes other than the sale or rental of the property, please notify the assessor listed above and your data will be restricted accordingly. Further information on this and on Energy Performance Certificates in general can be found at www.scotland.gov.uk/epcregister.

Opportunity to benefit from a Green Deal on this property

When the Green Deal launches, it may enable tenants or owners to improve the property they live in to make it more energy efficient, more comfortable and cheaper to run, without having to pay for the work upfront.

This report identifies which measures recommended for this property are eligible for Green Deal finance. You can choose which measures you want and ask for a quote from an authorised Green Deal provider. They will organise installation by an authorised installer. You pay for the improvements over time through your electricity bill, at a level no greater than the estimated savings to energy bills. If you move home, the Green Deal charge stays with the property and the repayments pass to the new bill payer.

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

To find out how you could use Green Deal finance to improve your property, visit www.energysavingtrust.org.uk/scotland or contact the Scottish Green Deal advice service at your local Energy Saving Scotland advice centre on 0800 512 012.

**Authorised
home energy
assessment**

**Finance at
no upfront
cost**

**Choose from
authorised
installers**

**Pay from
savings in
energy bills**

**Repayments
stay with the
home**