

# Energy Performance Certificate (EPC)

FLAT 13 , 35 LOTHIAN STREET, EDINBURGH, EH1 1HE

**Dwelling type:** Top-floor flat  
**Date of assessment:** 21 March 2013  
**Date of certificate:** 25 March 2013  
**Total floor area:** 64 m<sup>2</sup>

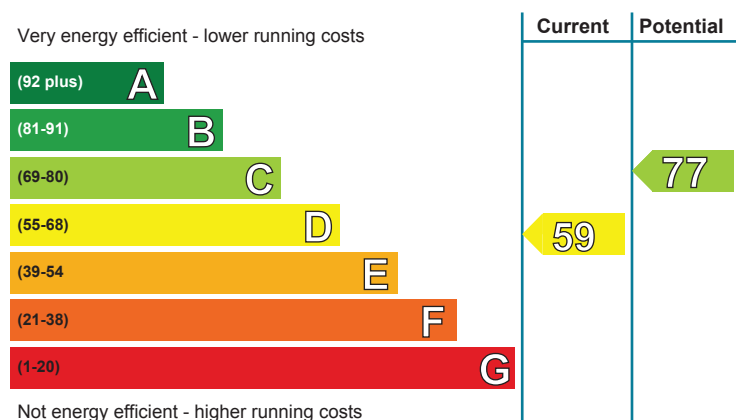
**Reference number:** 2100-4295-0329-3128-1773  
**Type of assessment:** RdSAP, existing dwelling  
**Primary Energy Indicator:** 310 kWh/m<sup>2</sup>/year  
**Main heating and fuel:** Boiler and radiators, mains gas

## 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<sub>2</sub> emissions by improving your home

|  |               |  |
|--|---------------|--|
| <b>Estimated energy costs for your home for 3 years*</b> | <b>£2,391</b> | See your recommendations report for more information |
| <b>Over 3 years you could save*</b>                      | <b>£1,074</b> |  |

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

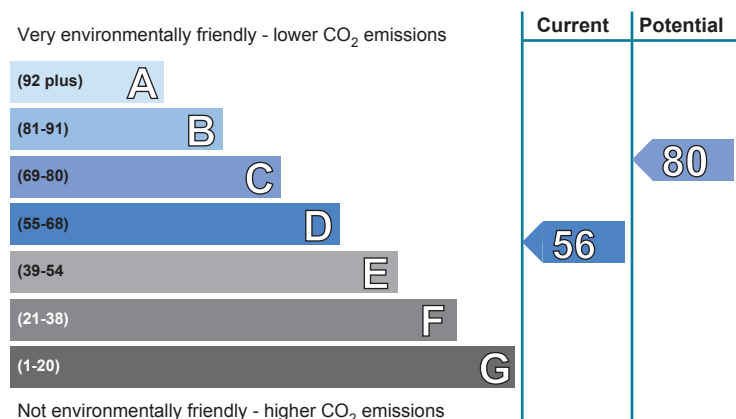


## Energy Efficiency Rating

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 D (59)**. The average rating for a home 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<sub>2</sub>) Rating

This graph shows the effect of your home on the environment in terms of carbon dioxide (CO<sub>2</sub>) emissions. The higher the rating, the less impact it has on the environment.

Your current rating is **band D (56)**. The average rating for a home in Scotland is **band D (59)**.

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 Internal or external wall insulation | £4,000 - £14,000 | £363                         | ✓                         |
| 2 Draughtproofing                      | £80 - £120       | £75                          | ✓                         |
| 3 Heating controls (room thermostat)   | £350 - £450      | £39                          | ✓                         |

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.



The Green Deal may allow you to make your home warmer and cheaper to run at no up-front capital 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.

| Element               | Description                                  | Energy Efficiency | Environmental |
|-----------------------|--|-------------------|---------------|
| Walls                 | Sandstone, as built, no insulation (assumed) | ★★☆☆☆             | ★★☆☆☆         |
| Roof                  | Pitched, 200 mm loft insulation              | ★★★★☆             | ★★★★☆         |
| Floor                 | (other premises below)                       | —                 | —             |
| Windows               | Single glazed                                | ★☆☆☆☆             | ★☆☆☆☆         |
| Main heating          | Boiler and radiators, mains gas              | ★★★★☆             | ★★★★☆         |
| Main heating controls | Programmer, TRVs and bypass                  | ★★★★☆             | ★★★★☆         |
| Secondary heating     | Room heaters, mains gas                      | —                 | —             |
| Hot water             | From main system                             | ★★★★☆             | ★★★★☆         |
| Lighting              | Low energy lighting in 80% 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 to calculate your energy use, CO<sub>2</sub> 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 6 tonnes of carbon dioxide every year. Based on this assessment, heating and lighting this home currently produces approximately 3.8 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 2.1 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 | Potential future savings  |
|---------------|----------------------|------------------------|---|
| Heating       | £1,848 over 3 years  | £879 over 3 years      |  |
| Hot water     | £408 over 3 years    | £300 over 3 years      |   |
| Lighting      | £135 over 3 years    | £138 over 3 years      |   |
| <b>Totals</b> | <b>£2,391</b>        | <b>£1,317</b>          |   |

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 Internal or external wall insulation                    | £4,000 - £14,000 | £121                    |  |  |  |
| 2 Draughtproofing   | £80 - £120       | £25                     |  |  |  |
| 3 Upgrade heating controls                                | £350 - £450      | £13                     |  |  |  |
| 4 Replace boiler with new condensing boiler               | £2,200 - £3,000  | £81                     |  |  |  |
| 5 Replace single glazed windows with low-E double glazing | £3,300 - £6,500  | £45                     |  |  |  |

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](http://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.

- Micro CHP

## 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](http://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 Internal or external wall insulation

Internal or external wall insulation involves adding a layer of insulation to either the inside or the outside surface of the external walls, which reduces heat loss and lowers fuel bills. As it is more expensive than cavity wall insulation it is only recommended for walls without a cavity, or where for technical reasons a cavity cannot be filled. Internal insulation, known as dry-lining, is where a layer of insulation is fixed to the inside surface of external walls; this type of insulation is best applied when rooms require redecorating. External solid wall insulation is the application of an insulant and a weather-protective finish to the outside of the wall. This may improve the look of the home, particularly where existing brickwork or rendering is poor, and will provide long-lasting weather protection. Further information can be obtained from the National Insulation Association ([www.nationalinsulationassociation.org.uk](http://www.nationalinsulationassociation.org.uk)). It should be noted that planning permission might be required and that building regulations apply to this work so it is best to check with your local authority whether a building warrant or planning permission will be required.

### 2 Draughtproofing

Fitting draughtproofing, strips of insulation around windows and doors, will improve the comfort in the home. A contractor can be employed but draughtproofing can be installed by a competent DIY enthusiast.

### 3 Heating controls (room thermostat)

The heating system should have a room thermostat to enable the boiler to switch off when no heat is required. A competent heating engineer should be asked to do this work. Insist that the thermostat switches off the boiler as well as the pump and that the thermostatic radiator valve is removed from any radiator in the same room as the thermostat. 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.

### 4 Condensing boiler

A condensing boiler is capable of much higher efficiencies than other types of boiler, meaning it will burn less fuel to heat this property. This improvement is most appropriate when the existing central heating boiler needs repair or replacement, however there may be exceptional circumstances making this impractical. Condensing boilers need a drain for the condensate which limits their location; remember this when considering remodelling the room containing the existing boiler even if the latter is to be retained for the time being (for example a kitchen makeover). 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.

### 5 Double glazing

Double glazing is the term given to a system where two panes of glass are made up into a sealed unit. Replacing existing single-glazed windows with double glazing will improve comfort in the home by reducing draughts and cold spots near windows. Double-glazed windows may also reduce noise, improve security and combat problems with condensation. Building regulations apply to this work and planning permission may also be required, so it is best to check with your local authority on what standards need to be met. A building warrant is not required if the windows comply with the current requirements.

## 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:** There are none provided for this home

## 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) | 8,783             | N/A                       | N/A                              | (2,826)                         |
| Water heating (kWh per year) | 2,451             |                           |                                  |                                 |

## Addendum

This dwelling has stone walls and so requires further investigation to establish whether these walls are of cavity construction and to determine which type of wall insulation is best suited.

## 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 BRE, 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.

|                             |  |
|-----------------------------|--|
| Assessor's name:            | Steven J Mclean                          |
| Assessor membership number: | BREC000718                               |
| Company name/trading name:  | J&E Shepherd                             |
| Address:                    | 13<br>Albert Square<br>Dundee<br>DD1 1XA |
| Phone number:               | 01382 200 454                            |
| Email address:              | s.mclean@shepherd.co.uk                  |
| Related party disclosure:   | No related party                         |

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](http://www.scotland.gov.uk).

## **Opportunity to benefit from a Green Deal on this property**

When the Green Deal launches, it may enable owners and occupiers to make improvements to their property to make it more energy efficient. Under a Green Deal, the cost of the improvements is repaid over time via a credit agreement. Repayments are made through a charge added to the electricity bill for the property.

To see which improvements are recommended for this property, please turn to page 3. You can choose which improvements you want to install and ask for a quote from an authorised Green Deal provider. They will organise installation by an authorised Green Deal installer. If you move home, the responsibility for paying the Green Deal charge under the credit agreement passes to the new electricity bill payer.

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

To find out more, visit **[www.direct.gov.uk/savingenergy](http://www.direct.gov.uk/savingenergy)** or call **0300 123 1234**.

