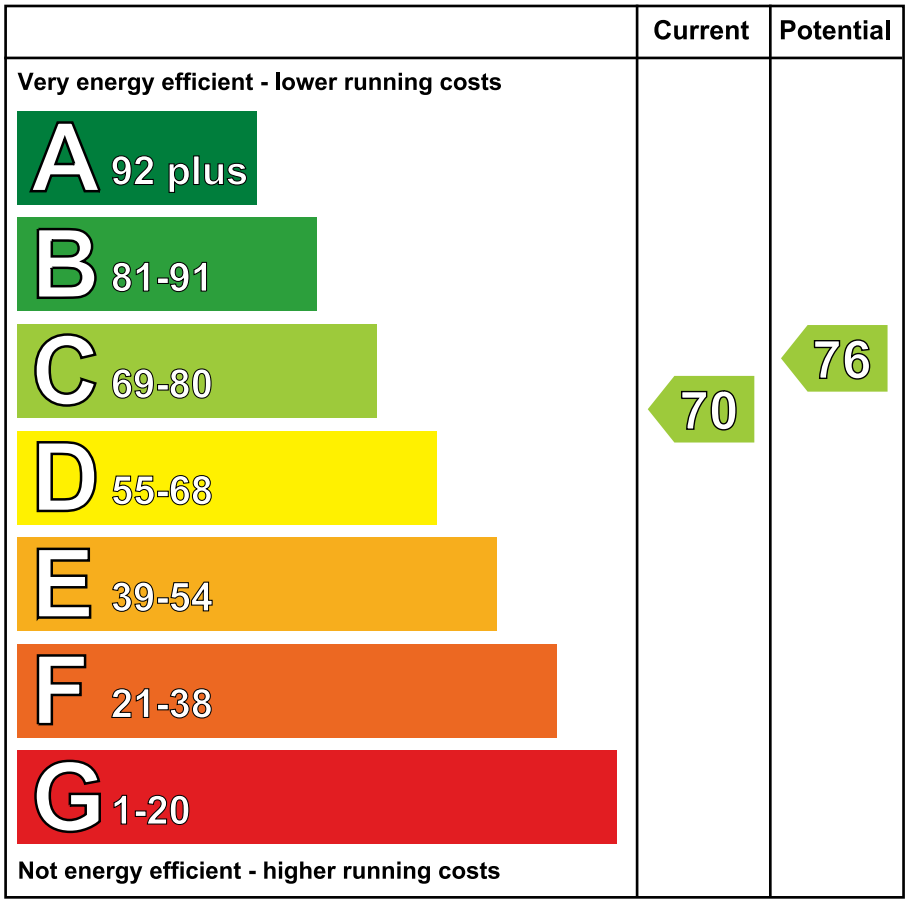
# Energy Performance Certificate

Northern Ireland

**1, Fernmore Road**
**BANGOR**
**BT19 6DY**

| | |
|---|---|
| Date of assessment: | 09 May 2016 |
| Date of certificate: | 10 May 2016 |
| Reference number: | 0319-9077-0205-6886-9990 |
| Type of assessment: | RdSAP, existing dwelling |
| Accreditation scheme: | Stroma Certification |
| Assessor's name: | Lisa Crossey |
| Assessor's accreditation number: | STRO023071 |
| Employer/Trading name: | Elan Environmental Ltd |
| Employer/Trading address: | 16 Loopland Grove , , Belfast, County Antrim, BT6 9DA |
| Related party disclosure: | No related party |

## Energy Efficiency Rating




## Technical Information

| | |
|---|---|
| **Main heating type and fuel:** | Boiler and radiators, mains gas |
| **Total floor area:** | 133 m² |
| **Approximate energy use:** | 201 kWh/m² per year |
| **Approximate $CO_2$ emissions:** | 35 kg/m² per year |
| **Dwelling type:** | Detached bungalow |

## Benchmarks

Average for Northern Ireland: D60

The approximate energy use and $CO_2$ emissions are per square metre of floor area based on fuel costs for the heating, ventilation, hot water and lighting systems. The rating can be compared to the benchmark of the average energy efficiency rating for the housing stock in Northern Ireland.

## Estimated energy use, carbon dioxide ($CO_2$) emissions and fuel costs of this home

| | Current | Potential |
|---|---|---|
| Energy use | 201 kWh/m² per year | 155 kWh/m² per year |
| Carbon dioxide emissions | 4.7 tonnes per year | 3.6 tonnes per year |
| Lighting | £116 per year | £75 per year |
| Heating | £861 per year | £674 per year |
| Hot water | £105 per year | £105 per year |

The figures in the table above have been provided to enable prospective buyers and tenants to compare 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.

To see how this home can achieve its potential rating please see the recommended measures.

## About this document

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Stroma Certification, to a scheme authorised by the Government. This certificate was produced using the RdSAP 2012 assessment methodology and has been produced under the Energy Performance of Buildings (Certificates and Inspections) Regulations (Northern Ireland) 2008. A copy of the certificate has been lodged on a national register.

## If you have a complaint or wish to confirm that the certificate is genuine

Details of the assessor and the relevant accreditation scheme are on the preceding page. You can get contact details of the accreditation scheme from their website at www.stroma.com together with details of their procedures for confirming authenticity of a certificate and for making a complaint.

## About the building's performance ratings

The ratings provide a measure of the building's 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 Northern Ireland is band D (rating 60).

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.epb.dfpni.gov.uk

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 describe how close this building could get to 100 if all the cost effective recommended improvements were implemented.

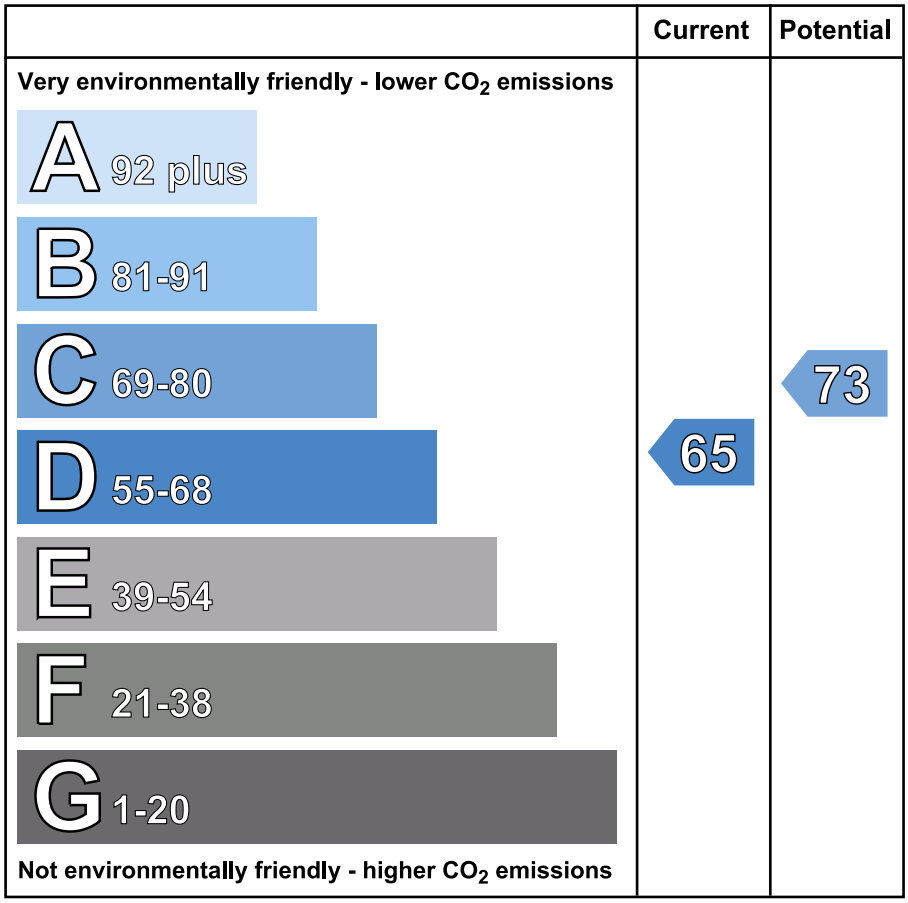
Remember to look for the energy saving recommended logo when buying energy-efficient products. It's a quick and easy way to identify the most energy-efficient products on the market.
For advice on how to take action and to find out about offers available to help make your home more energy efficient, call **0800 512 012** or visit **www.energysavingtrust.org.uk**

## 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.

## Environmental Impact ($CO_2$) Rating




**Visit the Department of Finance and Personnel website at www.epb.dfpni.gov.uk to:**

- Find how to confirm the authenticity of an energy performance certificate
- Find how to make a complaint about a certificate or the assessor who produced it
- Learn more about the national register where this certificate has been lodged
- Learn more about energy efficiency and reducing energy consumption

Further information about Energy Performance Certificates can be found under Frequently Asked Questions at www.epb.dfpni.gov.uk and at www.niepcregister.com

# Recommended measures to improve this home's energy performance

1, Fernmore Road
BANGOR
BT19 6DY

Date of certificate: 10 May 2016
Reference number: 0319-9077-0205-6886-9990

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

The table below gives an assessment of the key individual elements that have an impact on this home's energy and environmental performance. Each element is assessed by the national calculation methodology; 1 star means least efficient and 5 stars means most efficient. The assessment does not take into consideration the physical condition of any element. '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 | Current performance | |
|---|---|---|---|
| | | Energy Efficiency | Environmental |
| Walls | Cavity wall, filled cavity | ★★★★☆ | ★★★★☆ |
| Roof | Pitched, 50 mm loft insulation | ★★☆☆☆ | ★★☆☆☆ |
| | Roof room(s), insulated | ★★★★☆ | ★★★★☆ |
| Floor | Suspended, no insulation (assumed) | — | — |
| Windows | Fully double glazed | ★★★★☆ | ★★★★☆ |
| Main heating | Boiler and radiators, mains gas | ★★★★☆ | ★★★★☆ |
| Main heating controls | Programmer and at least two room thermostats | ★★★★☆ | ★★★★☆ |
| Secondary heating | None | — | — |
| Hot water | From main system | ★★★★☆ | ★★★★☆ |
| Lighting | Low energy lighting in 45% of fixed outlets | ★★★★☆ | ★★★★☆ |
| Current energy efficiency rating | | C 70 | |
| Current environmental impact ($CO_2$) rating | | | D 65 |

## 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.

| Lower cost measures | Indicative cost | Typical savings per year | Ratings after improvement | |
|---|---|---|---|---|
| | | | Energy efficiency | Environmental impact |
| 1 Increase loft insulation to 270 mm | £100 - £350 | £55 | C 71 | D 67 |
| 2 Low energy lighting for all fixed outlets | £30 | £35 | C 72 | D 68 |
| 3 Time and temperature zone control | £350 - £450 | £62 | C 74 | C 70 |
| Sub-total | | £152 | | |
| **Higher cost measures** | | | | |
| 4 Floor insulation (suspended floor) | £800 - £1,200 | £75 | C 76 | C 73 |
| Total | | £227 | | |
| Potential energy efficiency rating | | | C 76 | |
| Potential environmental impact ($CO_2$) rating | | | | C 73 |

## Further measures to achieve even higher standards

The further measures listed below should be considered in addition to those already specified if aiming for the highest possible standards for this home. Some of these measures may be cost-effective when other building work is being carried out such as an alteration, extension or repair. Also they may become cost-effective in the future depending on changes in technology costs and fuel prices. However you should check the conditions in any covenants, warranties or sale contracts, and whether any legal permissions are required such as a building warrant, planning consent or listed building restrictions.

| | | | | |
|---|---|---|---|---|
| 5 Solar photovoltaic panels, 2.5 kWp | £5,000 - £8,000 | £278 | B 84 | C 80 |
| Enhanced energy efficiency rating | | | B 84 | |
| Enhanced environmental impact ($CO_2$) rating | | | | C 80 |

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 reduced carbon dioxide emissions.

## About the cost effective measures to improve this home's performance ratings

Building regulations apply to most measures. Building regulations approval and planning consent may be required for some measures. If you are a tenant, before undertaking any work you should check the terms of your lease and obtain approval from your landlord if the lease either requires it, or makes no express provision for such work. Also check with the Energy Saving Trust or your local council to see if any grants are available.

### Lower cost measures

These measures are relatively inexpensive to install and are worth tackling first. The indicative costs of measures included earlier in this EPC include the costs of professional installation in most cases. Some of them may be installed as DIY projects. DIY is not always straightforward, and sometimes there are health and safety risks, so take advice before carrying out DIY improvements.

### 1 Loft insulation

Loft insulation laid in the loft space or between roof rafters to a depth of at least 270 mm will significantly reduce heat loss through the roof; this will improve levels of comfort, reduce energy use and lower fuel bills. Insulation should not be placed below any cold water storage tank; any such tank should also be insulated on its sides and top, and there should be boarding on battens over the insulation to provide safe access between the loft hatch and the cold water tank. The insulation can be installed by professional contractors but also by a capable DIY enthusiast. Loose granules may be used instead of insulation quilt; this form of loft insulation can be blown into place and can be useful where access is difficult. The loft space must have adequate ventilation to prevent dampness; seek advice about this if unsure (particularly if installing insulation between rafters because a vapour control layer and ventilation above the insulation are required). Further information about loft insulation and details of local contractors can be obtained from the National Insulation Association (www.nationalinsulationassociation.org.uk).

### 2 Low energy lighting

Replacement of traditional light bulbs with energy saving recommended ones will reduce lighting costs over the lifetime of the bulb, and they last up to 12 times longer than ordinary light bulbs. Also consider selecting low energy light fittings when redecorating; contact the Lighting Association for your nearest stockist of Domestic Energy Efficient Lighting Scheme fittings.

### 3 Heating controls (time and temperature zone control)

The heating system controls should be improved so that both the temperature and time of heating can be set differently in separate areas of your house; this will reduce the amount of energy used and lower fuel bills. For example, it is possible to have cooler temperatures in the bedrooms than in the living room provided internal doors are kept closed, and to have a longer heating period for the living room. It is best to obtain advice from a qualified heating engineer.

### Higher cost measures

### 4 Floor insulation (suspended floor)

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. . Further information about floor insulation is available from many sources including www.energysavingtrust.org.uk/northernireland/Insulation/Floor-insulation.

## About the further measures to achieve even higher standards

Further measures that could deliver even higher standards for this home. You should check the conditions in any covenants, planning conditions, warranties or sale contracts before undertaking any of these measures.

Building regulations apply to most measures. Building regulations approval and planning consent may be required for some measures. If you are a tenant, before undertaking any work you should check the terms of your lease and obtain approval from your landlord if the lease either requires it, or makes no express provision for such work. Also check with the Energy Saving Trust or your local council to see if any grants are available.

### 5 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. The British Photovoltaic Association has up-to-date information on local installers who are qualified electricians. It is best to obtain advice from a qualified electrician. Ask the electrician to explain the options.

## 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 $CO_2$ emissions.
- 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. Minimise the use of tumble dryers and dry clothes outdoors where possible.
- Check the draught-proofing of windows and replace it if appropriate.
- If you have unused open chimneys consider blocking them off (making provision for a ventilation opening and a cowl on top of the chimney to avoid dampness).