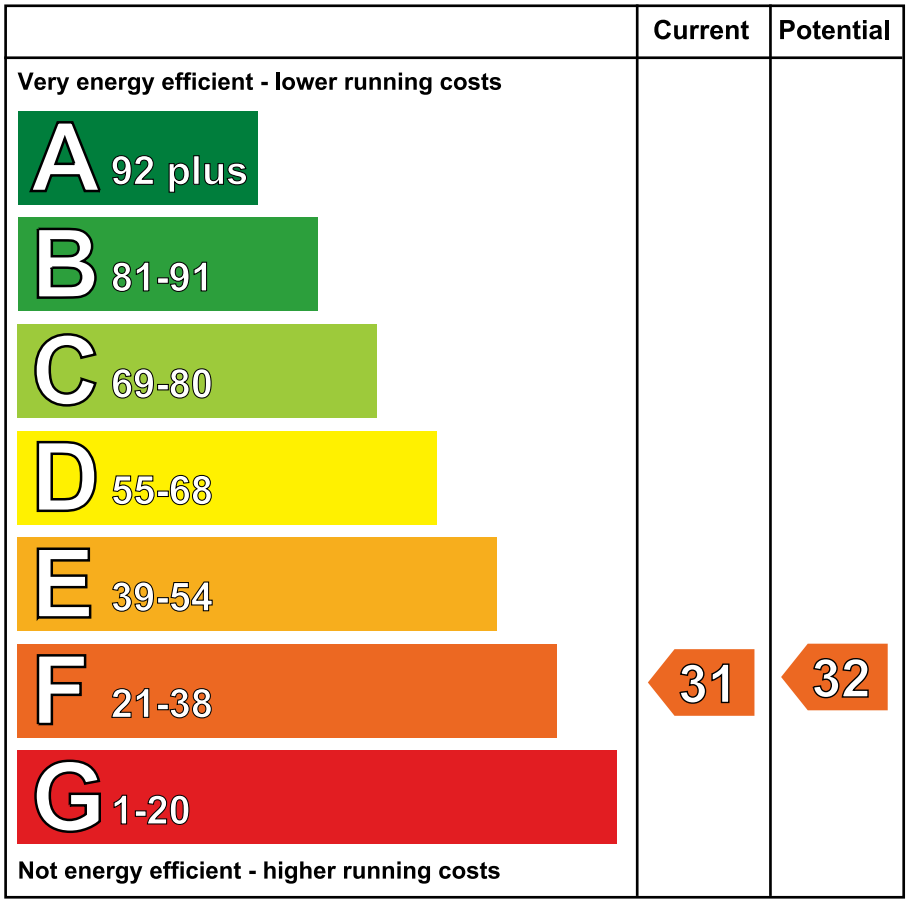
# Energy Performance Certificate

Northern Ireland

**Flat 1**
**37 Cromwell Road**
**BELFAST**
**BT7 1JX**

| | |
|---|---|
| Date of assessment: | 14 May 2019 |
| Date of certificate: | 31 May 2019 |
| Reference number: | 9349-4048-0245-7801-3914 |
| Type of assessment: | RdSAP, existing dwelling |
| Accreditation scheme: | Elmhurst Energy Systems Ltd |
| Assessor's name: | Mr. Ciaran Stuart |
| Assessor's accreditation number: | EES/007978 |
| Employer/Trading name: | Ciaran Stuart |
| Employer/Trading address: | 19 Clonmore Park, County Antrim, Lisburn, BT27 4EU |
| Related party disclosure: | No related party |

## Energy Efficiency Rating




## Technical Information

| | |
|---|---|
| **Main heating type and fuel:** | Room heaters, electric |
| **Total floor area:** | 53 m² |
| **Primary energy use:** | 622 kWh/m² per year |
| **Approximate $CO_2$ emissions:** | 105 kg/m² per year |
| **Dwelling type:** | Ground-floor flat |

## Benchmarks

Average for Northern Ireland: D60

The primary energy use and $CO_2$ emissions are per square metre of floor area based on fuel use 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 |
|---|---|---|
| Primary energy use | 622 kWh/m² per year | 606 kWh/m² per year |
| Carbon dioxide emissions | 5.6 tonnes per year | 5.5 tonnes per year |
| Lighting | £41 per year | £41 per year |
| Heating | £1,071 per year | £1,071 per year |
| Hot water | £374 per year | £342 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 and the data in it

The Energy Performance Certificate for this dwelling was produced following an energy assessment undertaken by a qualified assessor, accredited by Elmhurst Energy Systems Ltd, 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 (as amended). A copy of the certificate has been lodged on a national register. It will be publicly available and some of the underlying data may be shared with others for the purposes of research and compliance. The current property owner and/or tenant may opt out of having this information disclosed.

## 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.elmhurstenergy.co.uk 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.finance-ni.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.



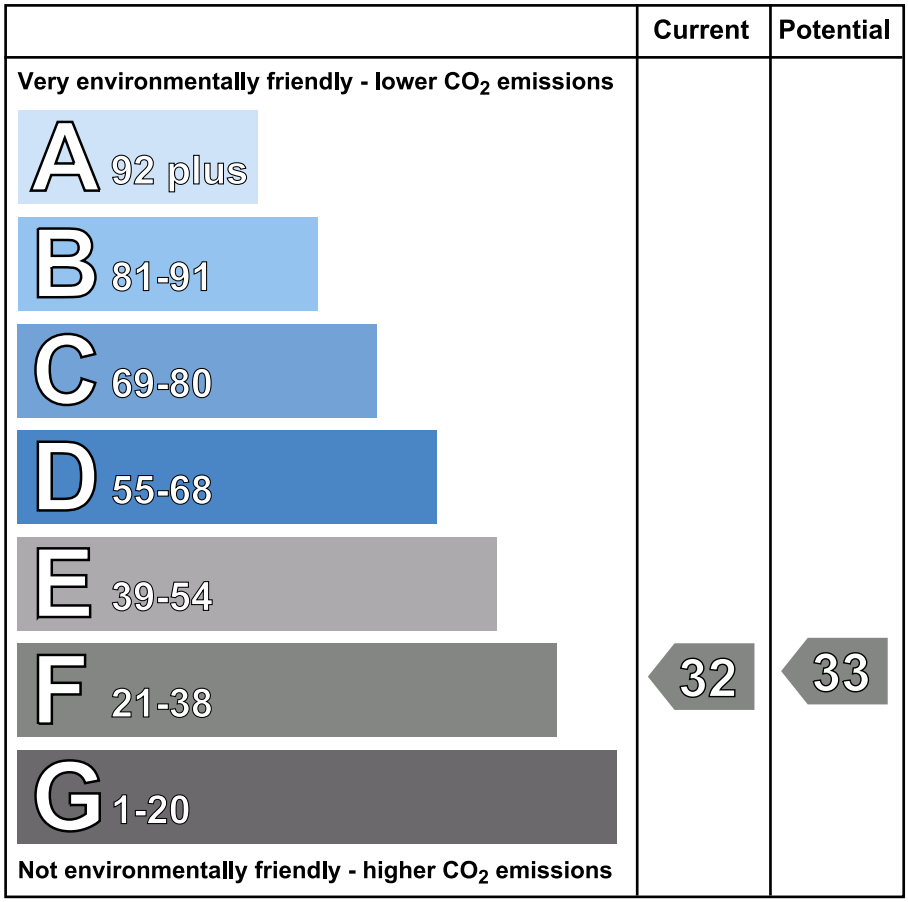

For further advice on home energy efficiency please see **www.nidirect.gov.uk/energy-wise**

## 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 website at www.finance-ni.gov.uk to:**

- 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.finance-ni.gov.uk and at www.niepcregister.com

# Recommended measures to improve this home's energy performance

Flat 1
37 Cromwell Road
BELFAST
BT7 1JX

Date of certificate: 31 May 2019
Reference number: 9349-4048-0245-7801-3914

## 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 | Solid brick, as built, no insulation (assumed) | ★★☆☆☆ | ★★☆☆☆ |
| | Solid brick, as built, partial insulation (assumed) | ★★★☆☆ | ★★★☆☆ |
| Roof | (another dwelling above) | ☆☆☆☆☆ | ☆☆☆☆☆ |
| Floor | Solid, no insulation (assumed) | — | — |
| Windows | Partial double glazing | ★★☆☆☆ | ★★☆☆☆ |
| Main heating | Room heaters, electric | ★☆☆☆☆ | ★★☆☆☆ |
| Main heating controls | Programmer and appliance thermostats | ★★★★☆ | ★★★★☆ |
| Secondary heating | None | — | — |
| Hot water | Electric immersion, off-peak | ★★☆☆☆ | ★★☆☆☆ |
| Lighting | Low energy lighting in all fixed outlets | ★★★★★ | ★★★★★ |
| Current energy efficiency rating | | F 31 | |
| Current environmental impact ($CO_2$) rating | | | F 32 |

## 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.

| Higher cost measures | Indicative cost | Typical savings per year | Ratings after improvement | |
|---|---|---|---|---|
| | | | Energy efficiency | Environmental impact |
| 1 Heat recovery system for mixer showers | £585 - £725 | £33 | F 32 | F 33 |
| Total | | £33 | | |
| Potential energy efficiency rating | | | F 32 | |
| Potential environmental impact ($CO_2$) rating | | | | F 33 |

## 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 building regulations, planning consent or listed building restrictions.

| | | | | |
|---|---|---|---|---|
| 2 Floor insulation (solid floor) | £4,000 - £6,000 | £166 | E 39 | F 38 |
| 3 Replace single glazed windows with low-E double glazed windows | £3,300 - £6,500 | £62 | E 41 | E 40 |
| 4 50 mm internal or external wall insulation | £4,000 - £14,000 | £392 | D 60 | D 55 |
| 5 Change heating to gas condensing boiler | £3,000 - £7,000 | £446 | C 77 | C 79 |
| Enhanced energy efficiency rating | | | C 77 | |
| Enhanced environmental impact ($CO_2$) rating | | | | C 79 |

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 Energywise or your local council to see if any grants are available.

### Higher cost measures

**1 Heat recovery system for mixer showers**
A shower heat recovery system extracts heat from the water in the shower drain and transfers it to incoming cold water. This reduces the amount of energy needed per shower.

## 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 Energywise or your local council to see if any grants are available.

**2 Floor insulation (solid floor)**
Insulation of a floor will significantly reduce heat loss; this will improve levels of comfort, reduce energy use and lower fuel bills. Further information about floor insulation is available from many sources including www.energysavingtrust.org.uk/northernireland/Insulation/Floor-insulation.

**3 Double glazed windows**
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-glazed windows 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.

**4 Internal or external wall insulation**
Solid 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 and can be installed by a competent DIY enthusiast. 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).

**5 Gas condensing boiler**
Changing the heating to use a mains gas boiler that provides both space and water heating will save money, as mains gas is currently cheaper than the fuel being used at present. A condensing boiler is capable of much higher efficiencies than other types of boiler, meaning it will burn less fuel to heat the property, but 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). This improvement is most appropriate when the existing heating system needs repair or replacement. It is best to obtain advice from a qualified heating engineer. Ask the engineer 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.
- Make sure your hot water is not too hot - a cylinder thermostat need not normally be higher than 60°C.
- 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).