TRANSITION BELPER ENERGY GROUP – OPEN HOMES WEEK INFO

2 Malthouse Lane, Nether Heage

This was originally a 24 x 12 feet stone and rubble 2 up/2 down cottage, built in the mid 1800's.

A rearward 2 storey extension block and stone was added around 1990 (see left pic), and a single storey block and stone annexe added about 1997 (see top pic). Both of these extensions have insulated cavities

All roofing is Staffordshire Blue tiles, with insulation on loft floors (except annexe which has a vaulted ceiling and insulation in roof/ceiling cavities.

Since we moved in (1997) we've carried out the following energy saving measures

Date	Action	Comment
c.2005	Replaced tungsten and halogen lights with LED	e.g 9x halogen kitchen spotlights (50w) replaced by 5w LEDs – saving up to 2 KwH per day
2006	Combi boiler replaced with condensing boiler	Condensing boilers recover heat from hot exhaust gases – increased efficiency
2009	EPC survey	D(56)
2010	Solar PV (1.5Kwp) installed on SE facing garage roof	Early adoption of FITS scheme started 2010. Entire system can be seen at close quarters
2011	Upgrade of double glazing throughout	Except externa ldoors
2012	Increased loft insulation	Adding to insulation between joists, plus 2 inch insulation slabs across joists to create some storage areas
2013	EPC survey	C(71)
2017	Internal cladding of bedroom 2 gable end	Entire wall using 62.5mm Celotex (12sq.m)
2017	External walls of original building repointed and treated with hydrophobic cream	Propurla - prevents moisture ingress which would increase conductivity of exterior stone
2018	Internal cladding of bedroom 1 gable end	Part of a fitted wardrobe project using 62.5mm Celotex (10 sq m)
2018	Second Solar PV system (1.5Kwp) installed on SW facing house roof	Not eligible for FITS. Total solar now 3kwp spread between SE and SW
2019	Cellular blinds fitted to most windows	In addition to curtains - IKEA Hoppvals
2022	Kitchen door - top half double glazed	Part of project to increase light into kitchen
2022	Kitchen door – bottom half insulated	Using **Proctor Spacetherm** insulation panel
2022 & 2024	Conservatory roof (double polycarbonate) insulated	2022- Using 50mm Jablite panels and OSB board – **not recommended**!. 2024 - **RE-done** after Jablite 'melted' in summer Replaced **with Rockwool** 75mm
2023	Internal cladding to lounge – gable end	Using **YBS Superquilt** -(4 sq. m)
2023	Internal cladding to lounge – front wall	Using **Proctor Spacetherm** (6 sq.m)
2023	Internal cladding to Dining room and bedroom 1	Front wall and window reveals of Bedroom 1 (4 sq.m). Front wall and window reveals of dining room. Also back wall of dining room where it is external -(7.4 sq m). All using **Spacetherm**
2023	Insulate front door	A non-standard sized panelled door with single glazing. Double glazed and clad with **Spacetherm** panels
2024	Additional insulation – internal cladding – of annexe NW wall	Original construction (1997) had 75mm cavity filled with rockwool. Internal cladding with **Superquilt** under softwood panelling
2024	**Offgrid solar/battery system** upgraded	800wp panels on outbuilding roof, with 48v/4kw hybrid inverter (**not grid connected**). Dedicated sockets in kitchen carrying approx. 1000 kwh per year. Draws offpeak mains electricity at night to top up batteries.
2024	Top-up insulation in loft	Up to 300mm over original part of house(unboarded). And over 2 storey extension except where boarded
2025	EPC (prior to heat pump install)	C (80)
2025	**Air source Heat Pump** installed	8kw Daikin installed by Octopus. New hot water tank and enlarged radiators.
2025	**All Electric**	Dual fuel cooker replaced by electric oven and induction hob. Gas meter capped – to be removed

Energy Performance Certificate

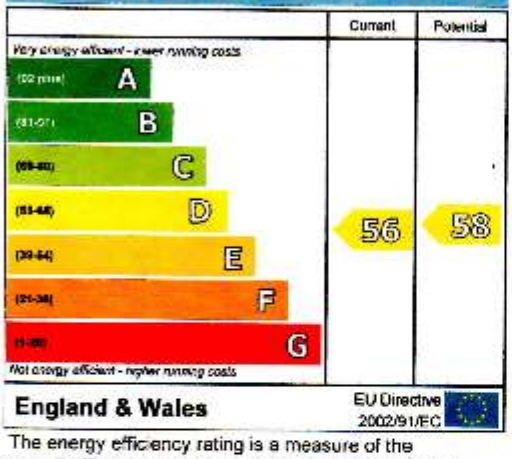
SAP

2, Malthouse Lane,
Nether Heage,
BELPER, DE56 2AS

Dwelling type:	Detached house
Date of assessment:	16 March 2009
Date of certificate:	17 March 2009
Reference number:	0050-2696-6179-0091-1861
Total floor area:	120 m²

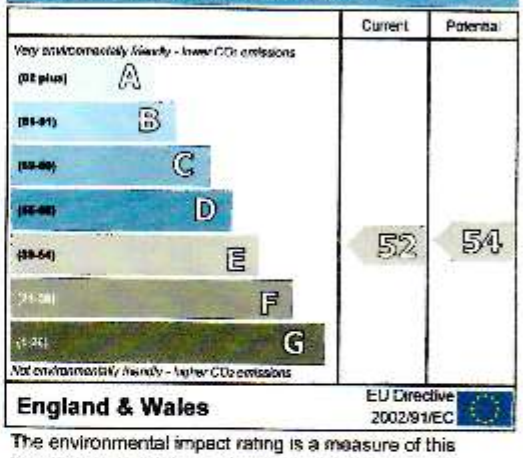
This home's performance is rated in terms of the energy use per square metre of floor area, energy efficiency based on fuel costs and environmental impact based on carbon dioxide (CO_2) emissions.

Energy Efficiency Rating



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

Environmental Impact (CO_2) Rating



The environmental impact rating is a measure of this home's impact on the environment in terms of carbon dioxide (CO_2) emissions. The higher the rating the less impact it has on the environment.

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

	Current	Potential
Energy use	296 kWh/m² per year	285 kWh/m² per year
Carbon dioxide emissions	5.9 tonnes per year	5.7 tonnes per year
Lighting	£95 per year	£63 per year
Heating	£818 per year	£803 per year
Hot water	£105 per year	£105 per year

Based on standardised assumptions about occupancy, heating patterns and geographical location, the above table provides an indication of how much it will cost to provide lighting, heating and hot water to this home. The fuel costs only take into account the cost of fuel and not any associated service, maintenance or safety inspection. This certificate has been provided for comparative purposes only and enables one home to be compared with another. Always check the date the certificate was issued, because fuel prices can increase over time and energy saving recommendations will evolve.

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

The address and energy rating of the dwelling in this EPC may be given to EST to provide information on financial help for improving its energy performance.

For advice on how to take action and to find out about offers available to make your home more energy efficient, call **0800 512 012** or visit **www.energysavingtrust.org.uk/myhome**

Energy Performance Certificate

2, Malthouse Lane, Nether Heage, BELPER, DE56 2AS

Dwelling type:	Detached house	**Reference number:**	9050-2892-6129-9007-3825
Date of assessment:	02 December 2013	**Type of assessment:**	RdSAP, existing dwelling
Date of certificate:	02 December 2013	**Total floor area:**	114 m²

Use this document to:

- Compare current ratings of properties to see which properties are more energy efficient
- Find out how you can save energy and money by installing improvement measures

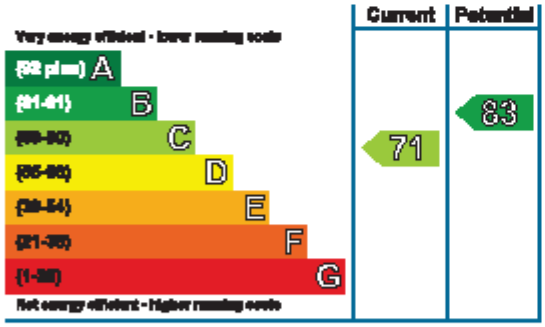
Estimated energy costs of dwelling for 3 years:	**£ 2,928**
Over 3 years you could save	**£ 744**

Estimated energy costs of this home

	Current costs	Potential costs	Potential future savings
Lighting	£ 204 over 3 years	£ 204 over 3 years	You could save £ 744 over 3 years
Heating	£ 2,433 over 3 years	£ 1,770 over 3 years	
Hot Water	£ 291 over 3 years	£ 210 over 3 years	
Totals	**£ 2,928**	**£ 2,184**	

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 like TVs, computers and cookers, and any electricity generated by microgeneration.

Energy Efficiency Rating



The graph shows the current energy efficiency of your home.

The higher the rating the lower your fuel bills are likely to be.

The potential rating shows the effect of undertaking the recommendations on page 3.

The average energy efficiency rating for a dwelling in England and Wales is band D (rating 60).

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	£ 492	
2 Floor Insulation	£800 - £1,200	£ 171	
3 Solar water heating	£4,000 - £6,000	£ 84	

See page 3 for a full list of recommendations for this property.

To find out more about the recommended measures and other actions you could take today to save money, visit **www.direct.gov.uk/savingenergy** or call **0300 123 1234** (standard national rate). The Green Deal may allow you to make your home warmer and cheaper to run at no up-front cost.

Energy performance certificate (EPC)

2 Malthouse Lane Nether Heage BELPER DE56 2AS	Energy rating **C**	Valid until: 20 March 2035 Certificate number: 1435-5127-3400-0429-8226

Property type	Detached house
Total floor area	110 square metres

Rules on letting this property

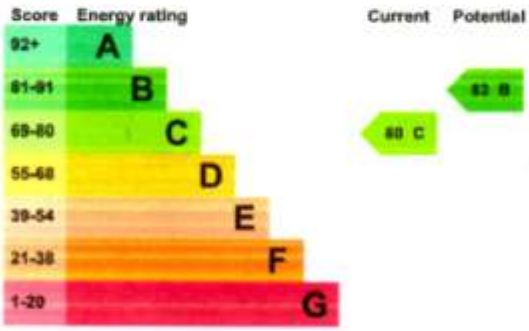
Properties can be let if they have an energy rating from A to E.

You can read guidance for landlords on the regulations and exemptions (https://www.gov.uk/guidance/domestic-private-rented-property-minimum-energy-efficiency-standard-landlord-guidance).

Energy rating and score

This property's energy rating is C. It has the potential to be B.

See how to improve this property's energy efficiency.

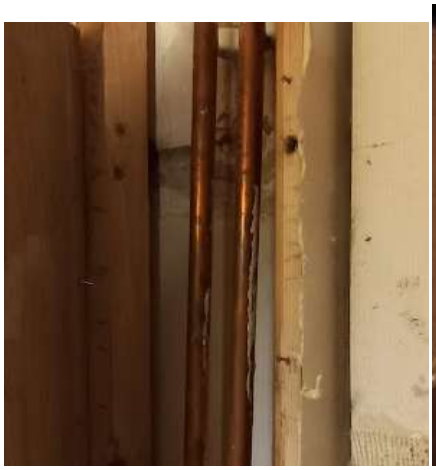


The graph shows this property's current and potential energy rating.

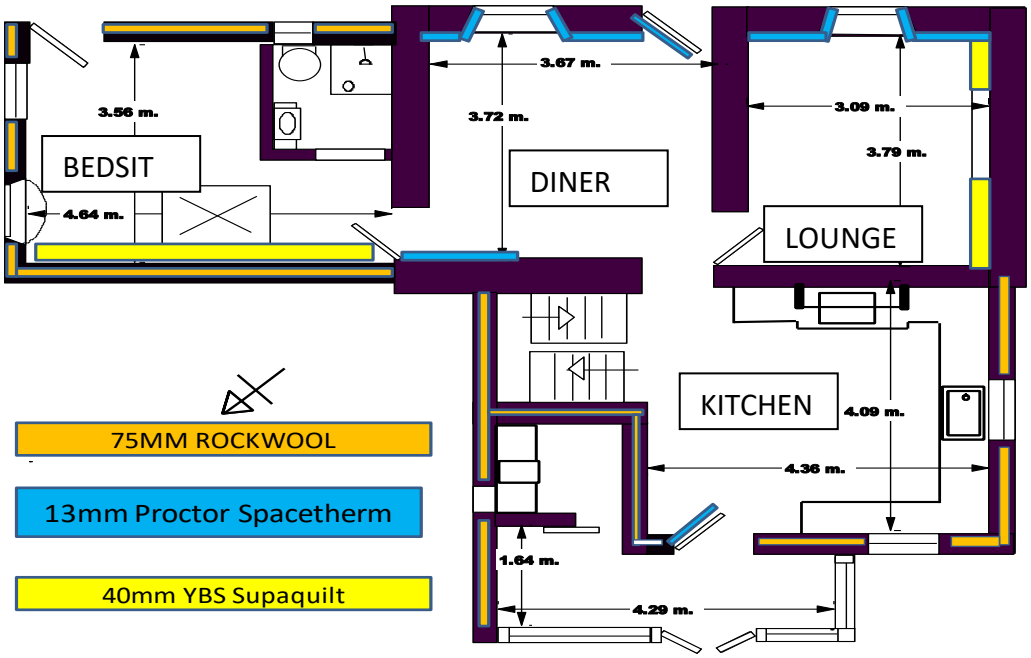
Properties get a rating from A (best) to G (worst) and a score. The better the rating and score, the lower your energy bills are likely to be.

For properties in England and Wales:

the average energy rating is D
the average energy score is 60

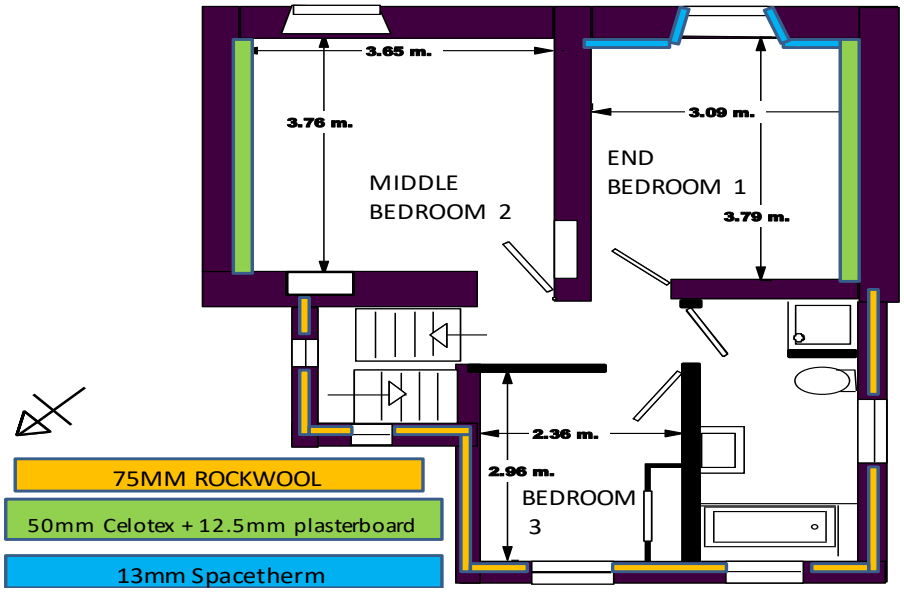


2 Malthouse Lane DE562AS Floorplans showing the application of internal cladding.



INSULATION OF 18" GRITSTONE/RUBBLE EXTERNAL WALLS , CAVITY WALL AND DOORS – GROUND FLOOR

INSULATION OF 18" GRITSTONE/RUBBLE EXTERNAL WALLS - UPSTAIRS



Roof Insulation:

- 75mm rockwool above Bedsit (single storey) ceiling
- 300mm loft roll (above Beds 1 & 2)
- 100mm loft roll + 18mm chipboard + 50mm polystyrene+carpet (Bed 3 & bathroom)