

pre-1900s mid terrace

Do you have a house like this? See how your home could benefit from energy efficiency improvements.



A House Like Mine: Charlbury

EPC rating: Current 68 D
Potential 89 B

| | |
|------------|---|
| Occupants | Owner occupied |
| Details | Mid terrace, 2 bedrooms |
| Floor area | 71 m ² |
| Walls | Solid and cavity |
| Floors | Solid |
| Roof | Pitched with rooms-in-roof |
| Windows | Double glazed, timber and upvc |
| Energy | Typical annual energy use: 12,897 kWh Annual energy use by area: 181 kWh/m ² Carbon emissions per year: 2.5 tonnes |

"Cosy Homes Oxfordshire helped me understand how piecemeal renovations and poor ventilation were making my home feel cold and damp. Their Whole House Plan helped me prioritise the most pressing retrofit measures.

Cosy Homes' Installs Support Package provided expertise and specialist contractors who understood my house, and worked within my constrained budget.

My home now feels warmer and a nicer place to be. I no longer have to issue guests with thick jumpers when they arrive!"

Alice, Charlbury



**Sustainable
Charlbury**
Reducing carbon,
restoring nature



What you can do...

Do you want to reduce your energy bills and cut carbon emissions? Would you like your house to be a healthier and more comfortable place to live? There are many different ways to make a building more energy efficient, whatever the house type, your personal circumstance and budget. Get ready to see the potential of your home...

Key: Low impact ● High impact ●●●●●●

Minor retrofit measures

Affordable and non-disruptive

| | Comfort and health | Disruption |
|---------------------------------------|--------------------|------------|
| Low energy lighting | ● | ● |
| Increase loft insulation to 300mm | ●●●● | ●● |
| Insulate and draught proof loft hatch | ●●●● | ● |
| New insulated front door | ●●●●● | ●● |
| Ventilation improvements | ●●●●●● | ●● |



Room-in-roof
Insulate internally with wood fibre to keep them warm in winter and cool in summer.

Major retrofit measures

Transformative, but more costly and disruptive

| | | |
|--|--------|---------|
| Internal wall insulation | ●●●●● | ●●●●●●● |
| Upgrade room-in-roof insulation | ●●●●● | ●●●●● |
| Solid floor insulation | ●●●●● | ●●●●●●● |
| New double or triple glazed timber windows | ●●●●●● | ●●●● |
| Air source heat pump | ●●●●●● | ●●●● |



Internal insulation
Woodfibre boards applied to inside of external walls and covered with lime plaster.

Renewables

Generate low carbon electricity

| | | |
|----------|---|----|
| Solar PV | ● | ●● |
|----------|---|----|



Skylight
High performance with external blinds to control heat loss / solar gain.

What is an EPC?

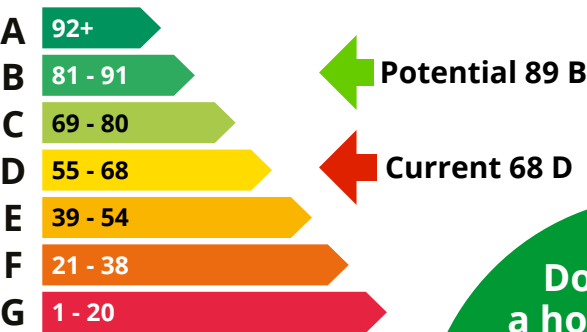
An EPC is a great milestone, but it's just the start. While it measures energy efficiency, it doesn't guarantee maximum comfort, warmth, or cost savings – those come from a complete retrofit of your property.

An Energy Performance Certificate (EPC) rating tells you about the energy efficiency of your home.

- The score is out of 100 (the higher, the better).
- It's divided into performance bands A-G.

A higher score means a more energy-efficient home with lower running costs.

Current EPC rating for this house, and its potential rating





Do you live in a house like this?
Find out more about retrofitting your home:
Oxfordshire County Council

...and how you can achieve EPC rating C


Making improvements to the energy performance of your house is a journey. The table below shows the difference each energy saving action could have on this particular house's EPC, fuel bill and carbon footprint.* Grants may be available for some of these measures.

| How to achieve EPC C rating | Estimated cost range | EPC rating | Estimated fuel bill | Estimated CO ₂ (tonnes) |
|--|----------------------|------------|---------------------|------------------------------------|
| Where you are now | Per measure | 68 D | £1,019 | 2.48 |
| Increase loft insulation to 300mm | £600 - £1,000 | 69 C | £969 | 2.32 |
| Humidity controlled extractors in kitchen & bathroom, passive ventilation in other rooms | £1,300 - £1,500 | 69 C | £969 | 2.32 |




Installing solar PV




At this point, if you install solar PV, you could reduce your fuel bill to **£671**, your carbon emissions to **2.11 tCO₂** and improve your EPC to **79 C**.
Cost: £3,750 - £5,000



Installing a heat pump


Or, if you install a heat pump, you could reduce your fuel bill to **£949**, your carbon emissions to **0.53 tCO₂** and improve your EPC to **74 C**.
Cost: £7,500 - £12,500





Solar PV + heat pump

Install both solar and a heat pump and you could reduce your fuel bill to **£640**, your carbon emissions to **0.32 tCO₂** and improve your EPC to **84 B**.
Cost: £11,250 - £17,500




For even greater comfort and health...

| | Estimated cost range | EPC rating | Estimated fuel bill | Estimated CO ₂ (tonnes) |
|--|----------------------|------------|---------------------|------------------------------------|
| After Fabric Measures to C | Per measure | 69 C | £969 | 2.32 |
| Upgrade insulation in room-in-roof | £5,000 - £10,000 | 70 C | £959 | 2.28 |
| Internal wall insulation (60mm) to solid walls | £7,200 - £8,500 | 74 C | £813 | 1.83 |
| Insulate solid floor | £5,400 - £6,600 | 74 C | £801 | 1.79 |
| New double glazed timber windows | £10,500 - £13,500 | 75 C | £764 | 1.67 |
| New insulated timber front door | £5,000 - £6,000 | 76 C | £753 | 1.63 |
| Air Source Heat Pump with enhanced existing radiators and new hot water tank | £7,500 - £12,500 | 79 C | £763 | 0.43 |
| Solar PV (2.1 kWp system) | £3,750 - £5,000 | 89 B | £456 | 0.22 |

*Savings are dependent on the retrofit measures being installed in the order shown. Cost to commission a new EPC at any stage to reflect retrofit updates, approx. £100.

Note: Figures are calculated using Cotality software from information gathered during a home energy survey. Cotality use nationally accepted methodology for calculations that underpin the Energy Performance Certificate (EPC) regime for all UK homes. Fuel bills are estimated and may differ from actual bills. The cost of the retrofit measures are indicative and based on current best estimates. Actual costs will vary depending on the choice of materials; the escalating costs of construction; and the availability of contractors.



Costs shown include **£7,500 grant** deduction

Get started

The difference a retrofit can make



Georgie Stewart
Cosy Homes Oxfordshire
Scheme Manager

"When insulating solid floors in traditional buildings we advise against using materials that trap water beneath them because this can lead to damp being pushed into the walls. We would need to use a vapour open floor insulation system such as limecrete."



Natasha Ginks
Cosy Homes Oxfordshire
Retrofit Coordinator

"Heat loss from the front walls of this terraced house can be reduced by applying internal wall insulation. With traditionally built houses it's important to use natural insulation materials like cork or wood fibre and not to apply too much – 60mm is ideal."

Find more inspiring case studies at cosyhomesoxfordshire.org



Get grant funding

Whether you own your home or rent – [you may be eligible](#) for a grant for insulation, heat pumps or even a whole house upgrade.

Talk to someone about energy bills


Struggling with your energy bills or not sure where to start?
[Better Housing Better Health](#) is a free advice service for local residents.

Scan the
QR code to visit
houlikemine.org



This Whole House Plan case study template was developed for the A House Like Mine project – an Oxford City Council initiative delivered in partnership with Cosy Homes Oxfordshire and Low Carbon Hub. It builds on the original Charlbury Home Comforts Project, which is now being re-energised under the A House Like Mine Charlbury framework – helping residents plan for warmer, healthier, more energy-efficient homes.

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