

# 1950s 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 69 C**  
**Potential 93 A**

Occupants	Owner occupied
Details	Mid terrace, 3 bedrooms
Floor area	112 m <sup>2</sup>
Walls	Cavity, unfilled and timber frame
Floors	Solid
Roof	Pitched with loft, flat roof
Windows	Double glazed, uPVC
Energy	Typical annual energy use: 18,216 kWh Annual energy use by area: 163 kWh/m <sup>2</sup> Carbon emissions per year: 3.8 tonnes



“We found the survey informative and eye-opening, especially in highlighting heat loss and the need for better insulation.

These 1950s council houses are solidly built but clearly need energy-efficiency upgrades. We’re now exploring solar panels and further heat-saving measures. Watch this space.”

Kieran and Gene, Charlbury



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# 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	●●●●	●
Cavity wall insulation	●●●●●	●●
New insulated front door	●●●●●	●●
Ventilation improvements	●●●●●●	●●



**Loft insulation.** Extra layers of insulation (up to 300mm) are rolled out between and over the joists.



**External wall insulation** boards covered with a special render applied to the outside of the house.

## Major retrofit measures

Transformative, but more costly and disruptive

External wall insulation to cavity walls	●●●●●	●●●
New double or triple glazed uPVC windows	●●●●●●	●●●●
Air source heat pump	●●●●●●	●●●●



**Solar PV panels.** Convert sunlight into electricity and help to reduce energy bills.

## Renewables

Generate low carbon electricity

Solar PV	●	●●
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# 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 unlock the full potential of your home

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.

 <p><b>Installing solar PV</b>  <i>If you</i> install solar PV, you could reduce your fuel bill to <b>£807</b>, your carbon emissions to <b>3.42 tCO<sub>2</sub></b> and improve your EPC to <b>81 B</b>.                  Cost: £4,500 - £6,000</p>	 <p><b>Installing a heat pump</b>  <i>Or, if you</i> install a heat pump, you could reduce your fuel bill to <b>£1,182</b>, your carbon emissions to <b>0.66 tCO<sub>2</sub></b> and improve your EPC to <b>76 C</b>.                  Cost: £7,500 - £12,500</p>	 <p><b>Solar PV + heat pump</b>  <i>Install both</i> solar and a heat pump and you could reduce your fuel bill to <b>£674</b>, your carbon emissions to <b>0.31 tCO<sub>2</sub></b> and improve your EPC to <b>88 B</b>.                  Cost: £12,000 - £18,500</p>
		

## For even greater comfort and health...

	Estimated cost range	EPC rating	Estimated fuel bill	Estimated CO <sub>2</sub> (tonnes)
<b>Where you are now</b>	<b>Per measure</b>	<b>69 C</b>	<b>£1,295</b>	<b>3.77</b>
Cavity wall insulation with external wall insulation	£16,800 - £22,000	74 C	£1,082	2.99
Increase loft insulation to 300mm	£1,400 - £1,800	74 C	£1,070	2.95
New uPVC triple glazed windows	£12,600 - £19,800	76 C	£989	2.63
New insulated doors (front & rear)	£4,200 - £5,400	77 C	£977	2.59
Humidity controlled extractors in kitchen, utility & bathroom, passive ventilation in other rooms	£1,900 - £2,200	77 C	£977	2.59
Air Source Heat Pump with enhanced existing radiators and new hot water tank	£7,500 - £12,500	 <b>81 B</b>	£942	0.53
Solar PV (3 kWp system)	£4,500 - £6,000	<b>93 A</b>	£437	0.18

\*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.

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

**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.

# Get started

## The difference a retrofit can make



**Geordie Stewart**  
Cosy Homes Oxfordshire  
Scheme Manager

*“External wall insulation is ideal for houses where the walls are rendered because if the colour of the new render is well matched then it doesn’t change the appearance too much.”*



**Natasha Ginks**  
Cosy Homes Oxfordshire  
Retrofit Coordinator

*“Often houses might only have 100mm of loft insulation, but 300mm is recommended. If you store things in the loft, consider a loft boarding system to avoid compressing the insulation and losing its effectiveness. You should also check that the loft space is properly ventilated so that moisture doesn’t build up and rot the roof timbers.”*

Find more inspiring case studies at [cosyhomesoxfordshire.org](https://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 [houelikemine.org](https://houelikemine.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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