

Pre-1900 mid-terrace

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



A House Like Mine case study

EPC rating: Current 66 D
Potential 91 B

Occupants: Owner-occupier: 2 adults
Details: Mid-terrace, 4 bedrooms, in conservation area
Floor area: 144 m² / 1,550 ft²
Walls: Solid brick. Rear extension: cavity walls
Floors: Solid concrete
Roof: Pitched with room-in-roof
Windows: Timber double glazed; bay window
Energy: Typical annual energy use: 24,225 kWh
Annual energy use by area: 170 kWh/m² / 15.79 kWh/ft²
Carbon emissions per year: 5 tonnes



“We have already done a lot of work on the house, but we wanted to get a Whole House Plan to see what more we can do to further reduce our CO₂ emissions. We didn’t know what might be possible and the Plan would give us a full picture of the options and what impact they would have.”

Carey and Jamie,
Walton Manor, Oxford

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	●	●
Insulate and draught-proof loft hatch	●●●●	●
Professionally draught-proof front door	●●●●●	●
Increase loft insulation around room-in-roof	●●●●	●●
Insulate bay window flat roof	●●●●	●●
Ventilation improvements	●●●●●●	●●



Room-in-roof insulation

Insulate roof rooms internally with wood fibre to keep warm in winter and cool in summer.



Internal wall insulation

Wood fibre boards are applied to the inside of external walls and covered with lime plaster.



Ventilation

Reduce dampness by improving air circulation and controlling moisture levels.

Major retrofit measures

Transformative, but more costly and disruptive

Upgrade room in roof - insulate throughout	●●●●●	●●●●●
Internal wall insulation (60mm) to solid walls	●●●●●	●●●●●●
Air Source Heat Pump	●●●●●●	●●●●●

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



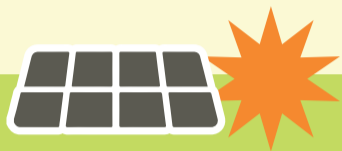
Do you live in a house like this? You could qualify for a free government grant.

Find out more at oxford.gov.uk/retrofit

...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	66 D	£2,035	5.04
Increase insulation in room-in-roof	£7,500 - £12,500	73 C	£1,576	3.73
Humidity controlled extractors in kitchen and bathroom, passive ventilation in other rooms	£1,500 - £2,500	73 C	£1,576	3.73



Installing solar PV

At this point, if you install solar PV, you could reduce your fuel bill to **£970**, your carbon emissions to **3.33 tCO₂** and improve your EPC to **84 B**.
Cost: £5,500 - £7,500.



Installing a heat pump

Or, if you install a heat pump, you could reduce your fuel bill to **£1,501**, your carbon emissions to **0.71 tCO₂** and improve your EPC to **77 C**.
Cost: £13,500 - £17,500.



Solar PV + heat pump

Install both solar and a heat pump and you could reduce your fuel bill to **£865**, your carbon emissions to **0.31 tCO₂** and improve your EPC to **88 B**.
Cost: £19,000 - £25,000.



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	73 C	£1,576	3.73
Internal insulation (60 mm) to solid walls	£16,000 - £19,000	76 C	£1,380	3.17
Insulate bay window flat roof	£2,500 - £3,500	76 C	£1,371	3.15
Professionally draught-proof front door	£250 - £450	76 C	£1,361	3.14
Air Source Heat Pump with enhanced existing radiators and new hot water tank	£13,500 - £17,500	80 C	£1,311	0.62
Solar PV (4 kWp system)	£5,500 - £7,500	91 B	£677	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.



Up to **£7,500 grant** towards a heat pump

Note: Figures are calculated using Parity Projects software from information gathered during a home energy survey. Parity Projects 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

Home improvements

Plan Builder is a free online tool that lets you create your own refurbishment plan to make your home warmer, reduce your carbon emissions and cut your energy bills.

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://www.houselikemine.org)



For more information see [houelikemine.org](https://www.houelikemine.org)

The difference a retrofit can make



Geordie Stewart
Cosy Homes Oxfordshire
Scheme Manager

“Bay window roofs, although small, can contribute to making the bay area cold. When replacing bay window roofs, make sure that insulation is incorporated into the new roof structure to improve thermal performance.”




Natasha Ginks
Cosy Homes Oxfordshire
Retrofit Coordinator

“This property has a recessed porch and insulating the ceiling of the porch can prevent heat loss through the floor of the room above. Having the front door professionally draught-proofed can be an excellent way of improving the warmth of the hallway whilst preserving traditional features in a conservation area.”

You can find more case studies, support, and resources at [houelikemine.org](https://www.houelikemine.org)

A [House Like Mine](https://www.houelikemine.org) is an Oxford City Council initiative, delivered in collaboration with Cosy Homes Oxfordshire and Low Carbon Hub. Its aim is to help everyone in Oxford get access to the information and support they need to live in a healthy and energy efficient home.

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