1970s detached

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 72 C
Potential 93 A

Occupants	Owner occupied
Details	Detached, 4 bedrooms
Floor area	109m^2
Walls	Cavity, filled
Floors	Solid
Roof	Low pitched with loft
Windows	Double glazed, uPVC
Energy	Typical annual energy use: 16,380 kWh
	Annual energy use by area: 146 kWh/m^2
	Carbon emissions per year: 3.4 tonnes

“We approached Cosy Homes Oxfordshire with the aim of making our family home fit for the 21st century. They gave us an holistic and realistic vision of what’s possible over time, allowing us to plan our finances and life to complete the retrofit in stages.”

Frances, Charlbury

Sustainable Charlbury
Reducing carbon, restoring nature

cosy homes oxfordshire

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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
Separate conservatory from house with external grade door	●●●●	●●
Increase loft insulation to 300mm	●●●●	●●
Insulate and draught proof loft hatch	●●●●	●
Insulate porch roof	●●●●	●●●
New insulated doors	●●●●●	●●
Ventilation improvements	●●●●●●	●●

Major retrofit measures
Transformative, but more costly and disruptive

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

Renewables
Generate low carbon electricity

Solar PV	●	●●

Conservatory
Replace glazed roof in conservatory with insulated panels to prevent heat loss.

Air source heat pumps collect heat from the outside air and transfer it to your heating and hot water systems.

New windows
Install double or triple glazed windows, making sure they're installed with airtight tape and insulation.

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.

Installing solar PV

If you install solar PV, you could reduce your fuel bill to **£690**, your carbon emissions to **3.02 tCO_2** and improve your EPC to **84 B**.
Cost: £4,500 - £6,000

Installing a heat pump

Or, if you install a heat pump, your fuel bill could rise slightly to **£1,213** †, your carbon emissions should reduce to **0.68 tCO_2** and your EPC improve to **76 C**.
Cost: £7,500 - £12,500

GRANT FUNDING

Solar PV + heat pump

Install both solar and a heat pump and you could reduce your fuel bill to **£694**, your carbon emissions to **0.32 tCO_2** and improve your EPC to **88 B.**
Cost: £12,000 - £18,500

GRANT FUNDING

For even greater comfort and health...

	Estimated cost range	EPC rating	Estimated fuel bill	Estimated CO_2 (tonnes)
Where you are now	**Per measure**	**72 C**	**£1,189**	**3.38**
Separate conservatory with external grade door	£2,100 - £2,700	**73 C**	£1,134	3.18
Increase loft insulation to 300mm	£1,500 - £2,100	**73 C**	£1,105	3.08
Insulate front extension roof	£2,700 - £3,300	**73 C**	£1,103	3.07
External insulation (100 mm) to all walls	£35,000 - £42,000	**76 C**	£983	2.63
New uPVC triple glazed windows	£11,500 - £18,000	**78 C**	£894	2.30
New insulated front door	£2,100 - £2,700	**78 C**	£875	2.23
Humidity controlled extractors in kitchen and bathrooms, passive ventilation in other rooms	£1,800 - £2,200	**78 C**	£875	2.23
Air Source Heat Pump with enhanced existing radiators and new hot water tank	£7,500 - £12,500 GRANT FUNDING	**81 B**	£938	0.53
Solar PV (3.0 kWp system)	£4,500 - £6,000	**93 A**	£421	0.17

*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.

†The running costs of a heat pump can often be mitigated by utilising off-peak tariffs

GRANT FUNDING 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

"The cavity walls of this house had been filled but over time the insulation had deteriorated and was no longer doing a good job. It's possible to extract old cavity wall insulation and refill with modern insulation materials which perform better. "

Natasha Ginks
Cosy Homes Oxfordshire
Retrofit Coordinator

"To improve energy efficiency, separate off the conservatory from the rest of the house with external-grade doors. Alternatively, consider replacing some or all of the glazed roof with solid insulated roof panels."

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 **houselikemine.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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