1970s semi-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**	**66 D**
	Potential	**96 A**
Occupants	Owner occupied	
Details	Semi-detached, 3 bedrooms	
Floor area	93 m^2	
Walls	Cavity, filled and unfilled	
Floors	Solid	
Roof	Pitched with loft	
Windows	Double glazed, uPVC	
Energy	Typical annual energy use: 17,121 kWh	
	Annual energy use by area: 184 kWh/m^2	
	Carbon emissions per year: 3.5 tonnes	

"Cosy Homes helped us identify key measures to improve the comfort of our home. With their help, we upgraded our cavity wall insulation, improved our loft insulation and replaced all our windows. The house now feels cosier and less draughty."

Christine and Ted, Charlbury

Sustainable Charlbury
Reducing carbon, restoring nature

cosy homes oxfordshire

low carbon hub

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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	●	●
Insulate inaccessible loft space	●●●●	●●●
Increase loft insulation to 300mm	●●●●	●●
Insulate and draught proof loft hatch	●●●●	●
Cavity wall insulation	●●●●●	●●
New insulated front door	●●●●●	●●
Ventilation improvements	●●●●●●	●●
Major retrofit measures **Transformative, but more costly and disruptive**		
External wall insulation to cavity walls	●●●●●	●●●
Insulate solid floor	●●●●●	●●●●●
New double or triple glazed uPVC windows	●●●●●●	●●●●
Air source heat pump	●●●●●●	●●●●
Renewables **Generate low carbon electricity**		
Solar PV	●	●●

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

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

Photo: Knauf Insulation/ Flickr

Cavity wall insulation. Polystyrene beads in resin are blown into the wall cavity through drilled holes.

What is an EPC?

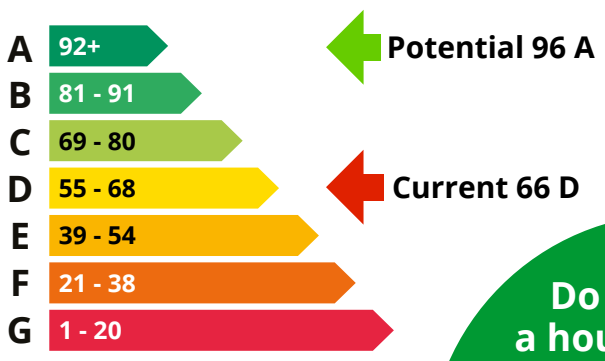
An EPC is a great milestone, but it's just the start. While it measures energy efficiency, it doesn't guarantee maximum comfort, warmth, or cost savings – those come from a complete retrofit of your property.

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



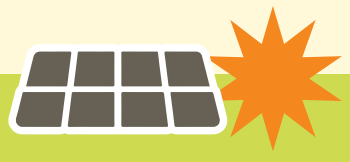
Do you live in a house like this? Find out more about retrofitting your home:

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**	**66 D**	**£1,268**	**3.53**
Low energy lighting	£50 - £100	**68 D**	£1,186	3.51
Insulate inaccessible loft space	£1,300 - £2,000	**68 D**	£1,171	3.46
Increase loft insulation to 300mm	£1,500 - £1,900	**69 C**	£1,139	3.34
Humidity controlled extractors in kitchen and bathroom, passive ventilation in other rooms	£1,000 - £1,300	**69 C**	£1,139	3.34



Installing solar PV

At this point, if you install solar PV, you could reduce your fuel bill to **£720**, your carbon emissions to **3.04 tCO_2** and improve your EPC to **81 B**.
Cost: £4,500 - £6,000

Installing a heat pump

Or, if you install a heat pump, you could reduce your fuel bill to **£1,064**, your carbon emissions to **0.60 tCO_2** and improve your EPC 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 **£628**, your carbon emissions to **0.30 tCO_2** and improve your EPC to **87 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)
After Fabric Measures to C	**Per measure**	**69 C**	**£1,139**	**3.34**
External insulation (100 mm) to cavity walls (main and extension)	£22,500 - £27,000	**72 C**	£1,036	2.97
Insulate solid floors	£11,500 - £14,000	**73 C**	£972	2.73
New uPVC triple glazed windows	£8,500 - £13,500	**76 C**	£869	2.35
New insulated doors (front and rear)	£4,200 - £5,400	**77 C**	£848	2.27
Air Source Heat Pump with enhanced existing radiators and new hot water tank	£7,500 - £12,500 GRANT FUNDING	**85 B**	£668	0.38
Solar PV (2.5 kWp system)	£4,500 - £6,000	**96 A**	£239	0.07

*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.

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

"It's unclear whether all the walls of this house have cavity wall insulation. We would recommend a borescope survey to check the coverage of the original cavity insulation and to confirm whether any empty cavities are suitable for filling."

Natasha Ginks
Cosy Homes Oxfordshire
Retrofit Coordinator

"This house only needs to carry out a couple of fabric improvements to bring its energy rating to C. Once the loft insulation has been increased and the cavity walls checked then this house should be suitable for a heat pump."

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.

The Low Carbon Hub IPS Limited is a registered society under the Co-operative and Community Benefit Societies Act 2014.
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