1950s semi-detached

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**	**67 D**
	Potential	**100 A**
Occupants:	Owner-occupier, 2 adults, 3 children	
Details:	Semi-detached, 3 bedrooms	
Floor area:	95 m^2 / 1,023 ft^2	
Walls:	Cavity with timber frame extension	
Floors:	Solid concrete	
Roof:	Pitched with loft	
Windows:	uPVC double glazing	
Energy:	Typical annual energy use: 15,978 kWh	
	Annual energy use by area: 170 kWh/m^2 / 15.79 kWh/ft^2	
	Carbon emissions per year: 3.3 tonnes	

"The Whole House Plan was extremely helpful. It provided a detailed cost breakdown and will help us prioritise our next steps. This advice was far better than the fragmented input from tradespeople, who just focus on their specific projects rather than take a whole house approach."

Louise, Marston, Oxford

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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 and draught-proof loft hatch	●●●●	●
Cavity wall insulation	●●●●●	●●
Increase loft insulation to 300mm	●●●●	●●
Insulate flat roof of rear extension	●●●●	●●
New insulated front door	●●●●●	●●
Ventilation improvements	●●●●●●	●●
Major retrofit measures **Transformative, but more costly and disruptive**		
External wall insulation	●●●●●	●●●
Solid floor insulation	●●●●●	●●●●●●
New triple glazed uPVC windows	●●●●●●	●●●●
Air Source Heat Pump	●●●●●●	●●●●
Renewables **Generate low carbon electricity**		
Solar PV	●	●●

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

Ventilation. Reduce dampness by improving air circulation and controlling moisture levels.

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

What is an EPC?

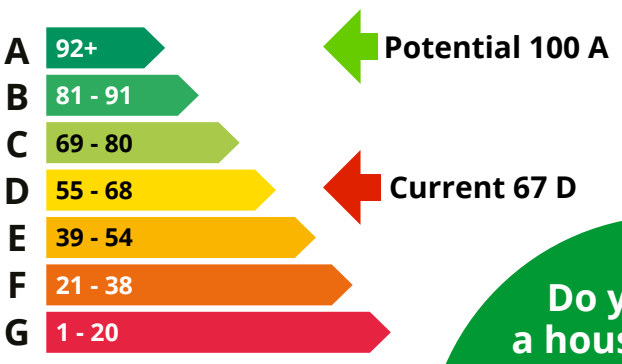
An EPC is a great milestone, but it's just the start. While it measures energy efficiency, it doesn't guarantee maximum comfort, warmth, or cost savings – those come from a complete retrofit of your property.

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**	**67 D**	**£1,810**	**3.31**
Cavity wall insulation	£1,500 - £1,750	**70 C**	£1,598	2.86
Increase loft insulation to 300mm	£1,750 - £2,250	**71 C**	£1,551	2.76
Humidity controlled extractors in kitchen and bathroom, passive ventilation in other rooms	£1,500 - £2,500	**71 C**	£1,551	2.76

Installing solar PV

At this point, if you install solar PV, you could reduce your fuel bill to **£462**, your carbon emissions to **2.35 tCO_2** and improve your EPC to **86 B**.
Cost: £5,500 - £7,500.

Installing a heat pump

Or, if you install a heat pump, you could reduce your fuel bill to **£1,534**, your carbon emissions to **0.57 tCO_2** and improve your EPC to **75 C**.
Cost: £13,500 - £17,500.

GRANT FUNDING

Solar PV + heat pump

Install both solar and a heat pump and you could reduce your fuel bill to **£445**, your carbon emissions to **0.16 tCO_2** and improve your EPC to **91 B.**
Cost: £19,000 - £25,000.

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**	**71 C**	**£1,551**	**2.76**
External wall insulation(100mm) to filled cavity walls	£15,000 - £18,000	**74 C**	£1,406	2.44
External wall insulation (100mm) to timber frame walls	£5,000 - £8,000	**74 C**	£1,366	2.36
Insulate flat roof of extension	£4,000 - £6,500	**76 C**	£1,266	2.14
Insulate solid floors	£9,000 - £12,500	**77 C**	£1,184	1.97
New triple glazed uPVC windows	£12,500 - £15,000	**80 C**	£1,038	1.65
New insulated doors – front and back	£4,000 - £6,000	**80 C**	£1,007	1.58
Air Source Heat Pump with enhanced existing radiators and new hot water tank	£13,500 - £17,500 GRANT FUNDING	**86 B**	£851	0.31
Solar PV (4 kWp system)	£5,500 - £7,500	**100 A**	£0.00	0.00

*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 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

The difference a retrofit can make

Geordie Stewart
Cosy Homes Oxfordshire
Scheme Manager

"Mould growth on bedroom ceilings usually indicates cold surface temperatures that need to be addressed. Increasing loft insulation and ensuring it overlaps with cavity wall insulation at the eaves is important. As lofts become more insulated it's vital that the space above the insulation is properly ventilated so that the roof timbers remain dry and free from rot."

Natasha Ginks
Cosy Homes Oxfordshire
Retrofit Coordinator

"External wall insulation is ideal for houses where the walls are rendered because it doesn't change the appearance. Louise and her husband are planning a new rear extension and this would be a great time to incorporate wall insulation on the main house."

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.

Scan the QR code to visit **houselikemine.org**

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.

A **House Like Mine** 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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