

1950s end-terrace

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



Landlords
Find out how you could improve the energy efficiency of your property.

A House Like Mine case study

EPC rating: Current 68 D
Potential 100 A

Occupants: Tenants: 2 adults, 3 children
Details: End-terrace, 3 bedrooms
Floor area: 87 m² / 936 ft²
Walls: Mostly cavity with some solid walls
Floors: Solid concrete
Roof: Pitched with loft
Windows: uPVC double glazed
Energy: Typical annual energy use: 14,478 kWh
Annual energy use by area:
167 kWh/m² / 15.51 kWh/ft²
Carbon emissions per year: 3 tonnes



"I'm interested in improving the energy efficiency of the house, to improve its EPC rating and prevent deterioration. But I'm also really keen to reduce the fuel bills for my tenants, making it cheaper for them to run."

Donna, landlord, Blackbird Leys, 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	●●●●	●
Cavity wall insulation	●●●●●	●●
Increase loft insulation to 300mm	●●●●	●●
Insulate flat roof of single storey extension	●●●●	●●
New insulated front door	●●●●●	●●
Ventilation improvements	●●●●●●	●●

Major retrofit measures

Transformative, but more costly and disruptive

External wall insulation	●●●●●	●●●
Solid floor insulation	●●●●●	●●●●●
New double or triple glazed uPVC windows	●●●●●●	●●●●
Air Source Heat Pump	●●●●●●	●●●●

Renewables

Generate low carbon electricity

Solar PV	●	●●
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Boiler efficiency. Check the efficiency of your gas boiler with an assessment.



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



Flat roofs. When reaching the end of their life, reduce flat roofs heat loss by adding insulation to create a "warm roof".

What is an EPC?

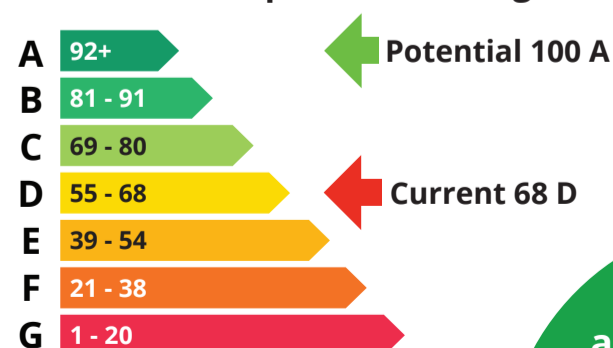
An EPC is a great milestone, but it's just the start. While it measures energy efficiency, it doesn't guarantee maximum comfort, warmth, or cost savings – those come from a complete retrofit of your property.

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	68 D	£1,291	3.00
Increase loft insulation to 300mm	£1,500 - £2,000	69 C	£1,269	2.94
Cavity wall insulation	£1,250 - £1,750	72 C	£1,120	2.51
Humidity controlled extractors in kitchen and bathroom, passive ventilation in other rooms	£1,500 - £2,500	72 C	£1,120	2.51



Installing solar PV

At this point, if you install solar PV, you could reduce your fuel bill to **£446**, your carbon emissions to **2.05 tCO₂** and improve your EPC to **91 B**.
Cost: £5,500 - £7,500



Installing a heat pump

Or, if you install a heat pump, you could reduce your fuel bill to **£1,137**, your carbon emissions to **0.54 tCO₂** and improve your EPC to **75 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 **£424**, your carbon emissions to **0.07 tCO₂** and improve your EPC to **94 A**.
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	72 C	£1,120	2.51
External wall insulation (100mm) to filled cavity walls	£15,000 - £17,500	74 C	£1,032	2.26
External insulation to non-cavity first floor walls	£7,500 - £10,000	77 C	£904	1.90
Insulate flat roof of single storey extension	£2,500 - £3,500	77 C	£893	1.87
Insulate solid floors	£8,000 - £12,500	78 C	£837	1.71
New insulated front door	£2,000 - £3,000	78 C	£826	1.68
Triple glazed uPVC windows	£10,000 - £15,000	79 C	£777	1.55
Air Source Heat Pump with enhanced existing radiators and new hot water tank	£13,500 - £17,500	86 B	£647	0.31
Solar PV (4kWp system)	£5,500 - £7,500	100 A	£0	0

*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 [houselikemine.org](https://www.houselikemine.org)



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

The difference a retrofit can make



Geordie Stewart
Cosy Homes Oxfordshire
Scheme Manager

“Often houses might only have 100mm of loft insulation, but 300mm is recommended. If you or your tenants 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.”




Natasha Ginks
Cosy Homes Oxfordshire
Retrofit Coordinator

“The walls of this property are mainly cavity, but the first floor walls at the front and back are solid (with hung wall tiles). External Wall Insulation can be applied to both cavity and solid walls which will reduce fuel bills and improve airtightness. It’s also not too disruptive for tenants as all of the work is external.”

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

A [House Like Mine](https://www.houselikemine.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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