1990s top floor flat

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	65 D
	Potential	85 B

Occupants:	Tenants: 2 adults
Details:	Top-floor flat, 1 bedroom,
	in conservation area
Floor area:	55 m² / 592 ft²
Walls:	Timber frame, rooms-in-roof
Floors:	Timber, with another flat below

Pitched with loft



"I rent mostly to young professionals, and to make it as appealing as possible, I want to do my best energy-wise, as people are more and more interested in climate change. The flat is electrically heated,

Roof:

Windows:

Energy:

Double glazed with skylights Typical annual energy use: 5,235 kWh Annual energy use by area: 95 kWh/m² / 8.83 kWh/ft² Carbon emissions per year: 0.7 tonnes and this can be expensive, so I also really want to lower energy bills for tenants." Catherine, landlord,

Temple Cowley, 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	•	•
Install insulated jacket to hot water tank	•	•
Insulate and draught-proof loft hatch	••••	•
Increase communal loft insulation to 300mm	••••	••
Insulate internal wall adjacent to stairwell	••••	•••
New insulated front door	••••	••
Ventilation improvements		••

Major retrofit measures

Transformative, but more costly and disruptive			
Internal insulation to timber frame walls and sloping ceilings			
New triple glazed windows and skylights	•••••		
Air Source Heat Pump	•••••	•••	

Renewables

Generate low carbon electricity			
Solar PV	٠	••	



Low energy lighting. LEDs are 70% more efficient than traditional light bulbs.



Hot water tank iacket Install a new superinsulated jacket around older hot water tanks.



Skylight. Install high performance skylights with external blinds to control heat loss and solar gain.

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

С

D

Ε

F



...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	65 D	£1,087	0.71
Increase insulation in communal loft to 300mm	£2,000 - £2,500	70 C	£927	0.62
Humidity controlled extractors in kitchen and bathroom, passive ventilation in other rooms	£1,500 - £2,500	70 C	£927	0.62



Installing solar PV

At this point, if you install solar PV, you could reduce your fuel bill to **£823**, your carbon emissions to **0.56 tCO**₂ and improve your EPC to **73 C.** Cost: £1,500 - £2,000.



Installing a heat pump

Or, if you install a heat pump, you could reduce your fuel bill to **£696**, your carbon emissions to **0.33 tCO**₂ and improve your EPC to **80 C.** Cost: £15,500 - £19,500.



Solar PV + heat pump

Install both solar and a heat pump and you could reduce your fuel bill to **£590**, your carbon emissions to **0.27 tCO**₂ and improve your EPC to **84 B.** Cost: £17,000 - £21,500.

For even greater comfort and health...

	Estimated cost range	EPC rating	Estimated fuel bill	Estimated CO₂(tonnes)
After Fabric Measures to C	Per measure	70 C	£927	0.62
Internal insulation to timber frame walls and sloping ceilings	£12,500 - £17,500	70 C	£919	0.62
New triple glazed windows and skylights	£6,500 - £8,500	73 C	£821	0.56
New insulated front door	£2,000 - £3,000	73 C	£818	0.56
Air Source Heat Pump with new radiators and hot water tank	£15,500 - £19,500	ANT 81 B	£653	0.31
Install 4 kWp communal Solar PV - cost and generation split between all flats	£1,500 - £2,000	85 B	£547	0.25
For maximum comfort and health		85 B	£547	0.25

*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.



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



For more information see houselikemine.org

The difference a retrofit can make



Geordie Stewart Cosy Homes Oxfordshire Scheme Manager

"Skylights can lose a lot of heat at night and on cold, clear days. They can also contribute to summertime overheating. Upgrading them to triple glazed versions with external blinds will improve overall energy efficiency and control overheating."



Natasha Ginks Cosy Homes Oxfordshire Retrofit Coordinator

"The insulation in the communal loft is insufficient and needs topping up. The top floor flat is most affected because it will lose heat most quickly to the loft space. All leaseholders should contribute to the cost of communal insulation works but it's often hard to get this agreed."

A <u>House Like Mine</u> 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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