# 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 m<sup>2</sup> / 592 ft<sup>2</sup>

Walls: Timber frame, rooms-in-roof Floors: Timber, with another flat below

Roof: Pitched with loft

Windows: Double glazed with skylights

Energy: Typical annual energy use: 5,235 kWh

Annual energy use by area: 95 kWh/m<sup>2</sup> / 8.83 kWh/ft<sup>2</sup>

Carbon emissions per year: 0.7 tonnes

"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, and this can be expensive, so I also really want to lower

Catherine, landlord, Temple Cowley, Oxford

energy bills for tenants."













## 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	•	•
nstall insulated jacket to hot water tank	•	•
nsulate and draught-proof loft hatch	••••	•
ncrease communal loft insulation to 300mm	••••	••
nsulate internal wall adjacent to stairwell	••••	•••
New insulated front door	••••	••
/entilation improvements	•••••	••
Major retrofit measures Transformative, but more costly and disrupt Internal insulation to timber frame walls and sloping ceilings New triple glazed windows and skylights	ive	••••
Air Source Heat Pump	•••••	••••
Renewables		
Generate low carbon electricity		



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



Hot water tank jacket
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?

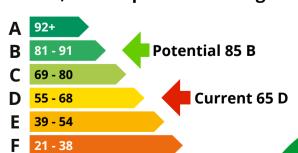
An EPC is a great milestone, but it's just the start. While it measures energy efficiency, it doesn't guarantee maximum comfort, warmth, or cost savings – those come from a complete retrofit of your property.

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** 



**G** 1 - 20

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 <sub>2</sub> (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 tCO₂ 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 tCO₂ 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 tCO₂ 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 CO <sub>2</sub> (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		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

<sup>\*</sup>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.



## **Get started**

#### 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."

### 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



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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