

Energy Efficiency Kingston

Alan Ferdman May 2025

Our Journey To Green

What's this about ?

- It started with us 'getting larger bills' & climate change understanding, could we improve ?
- We carried out a professional energy survey
- We found major flaws like a non insulated roof space/office.
- There's a lot to consider

Reasons to Improve Your Homes Energy Efficiency

May include any combination of :

1. Climate Change concerns i.e. reducing your Carbon Dioxide production
2. Improving your Comfort levels
3. Reducing the size of your bills.

Update circa 2022 - The Reckoning

- Our gas consumption is approx. 30MWh per annum for heating, water and cooking (gas hob).
- Electricity - Early days close to 7MWh (with both sons at home).
- With introduction of LED lights, heat pump tumble dryer , OLED TV (from Plasma) down to 4.5MWh per annum

Update contd.

- Why do we use much gas you may ask?
- 170 m2 house , solid brick walls + uninsulated loft/office (left over rehearsal room)
- Mainly single pane glass windows up to 2024
- So we took the plunge and asked an expert to confirm and characterize.
- We thought this might help make decisions on any improvements.





EcoFURB
The Low Carbon Home Service

Ecofurbin Plan

Your Ecofurbin Coordinator
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Phase 1 Measures	Estimated Costs	Energy Rating	Fuel Bill	tCO ₂	Heat Demand (kWh/m ² /yr)
External Wall Insulation (100 mm) to solid walls	£50,500	79 C	£3,120	4.52	78.20
Upgrade Room-in-Roof - insulate throughout	£16,670	59 D	£4,870	7.62	148.16
Replace A Rated gas boiler with ASHP with enhanced existing radiator, new hot water cylinder and controls	£19,500	81 B	£3,230	1.01	68.62

‘Fabric First’ Is what we’re told , but !

- ▶ The External Wall insulation project, looked too much for us , so examined the loft/office roof with a view to improving.
- ▶ Re our office / roof insulation - In spite of an early guide of £16K , extras , such as replumbing rads, adding gable end stud walls, rewiring just to start add more.... ££££
- ▶ We’ve actually had quotes in the £20-30K region to accomplish this work. Has to include: re wiring , re instating radiators, gable walls to support...
- ▶ Right or Wrong we’ve decided the two above tasks are not for us, but for the next owner!

So what can we do reduce our CO2 Emissions , improve our comfort and costs ?

▶ Simpler things we've done in the last 12 months:

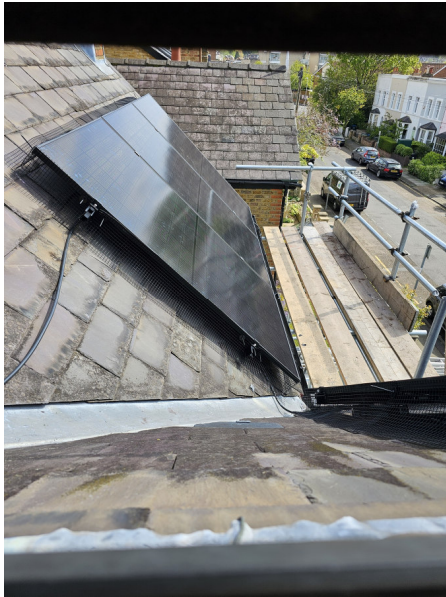
i) We've installed Solar PV on our roof

12 panels 5.3kWpeak, solar divertor and 9kWh battery pack

ii) Replaced 14 single glazed windows with double glazed units (we can see a reduction in gas use from last Jan/Feb 2024.)

▶ What else could we still do:

Replace our gas hob , replace our original double glazing (6 windows) add an 'air source heat pump'. Plenty left that's still affordable.



Thanks for listening / Any Questions please

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Double Glazing Notes

Triple Glazing not an option on our sash uPVC , Our u value 1.3 . Perhaps not an issue if no cost constraints.

Approx. 20% increase re double glazing with casement windows.