

People Exploring Low Energy Homes

Perowne Street, CB1 2AY

Elizabeth Baggs:

Elizabeth moved into her 1890's Victorian mid terrace in 2001. She was spurred into making the changes to her home by talking to her neighbours, receiving leaflets and chatting to Cambridge Carbon Footprint. Being able to use the thermal imaging camera to highlight the problem areas she says was an "eye opener" and making the decision to stay in her home for as long as possible post retirement meant that she needed to make it warm and comfortable.



Overview

Age, Type: Built in 1890's Victorian Mid Terrace
Wall type, Floor area: Solid brick.
Floor Area: 94m²
Project timescale: ongoing until the end of 2014
Cost of build: £35,000

	Energy kWh/m ² /yr		Carbon kgCO ₂ /yr		2 people Notes
	Elec	Gas	/m ²	/person	
Before	22	121	32	1509	
After	NA	NA	NA	NA	

Key features in place

- Radiator reflectors
- Loft insulation
- Double glazing
- Low energy lighting
- A+ fridge freezer
- New boiler
- Water Butts
- Water management in loos

Planned

- Under floor insulation
- Wall insulation
- Air sealing around edge of floors
- Draft stripping

Low Energy Measures

Insulation and heating:

To begin with she started with some small scale insulation such as draft stripping and brushes around the doors; and a more expensive measure, yet cheaper than replacing, was to add insulation stripping around the windows also. Radiator reflectors on the external walls were also installed. After this she moved onto more extensive forms which include having a silver foil lined with Celotex put under her slate roof.

Appliances, lighting and water:

Elizabeth has changed as many lights as she could to low energy bulbs. She has also replaced her old boiler with a new condensing one and her old fridge-freezer to a A+ rated model.

Water butts have also become a feature of this property and Elizabeth also uses Hippos in the WCs to conserve water usage.





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Performance

The house so far is performing to Elizabeth's expectations and has greatly increased her homes warmth and comfort. The new double glazing is what Elizabeth says "has been my greatest achievement and joy", explaining that her rooms already keep the heat better and that another benefit is that it is also much quieter inside.



Future Plans

Thinking ahead, Elizabeth plans to have a kitchen extension. The idea is to have a well-insulated (ceiling, wall and floor) and double glazed single storey space made from eco-friendly materials to have as her main 'live in' space. She plans for it to be open plan with bi-fold doors in order to capture and harness as much of the south-western sun's heat and light as possible. LED lighting will be used when the natural light isn't available.

The internal and, if she gets permission, external solid wall insulation she hopes to install is with the financial help from the Green Deal Community Fund. Alongside this, Elizabeth also plans to seal the edges of her floors for air-tightness and find a better solution to her letterbox.

Elizabeth is also interested in a heat recovery system for her bathroom and shower room and potentially a thermally operated shutter too.

Professional Contacts and Products

Glazing: Lawrence Smith Joinery Ltd.
 Unit 9 Harding Way
 St Ives, Cambs, PE27 3WR
 Tel – 01480 452994 Fax – 01480 494239

Architect: Marilize Snyman-Harvey
 (who is building a PassivHaus herself)
 Tel – 07796 692864