

## Coleridge Road, CB1 3PN

Kim and Charlie:

Kim and Charlie bought this 1930 semi in 1995, aiming to eco-reno- vate while creating a light, spacious environment for their three children, plus two student lodgers.

‘With a limited budget we undertook much of the work ourselves. The structural works were done in phases working around a growing family. We always wanted to use natural materials such as solid wood floorboards, slate flooring and wooden replacement windows.

We’ve visited a lot of Open Eco Homes, and have now implemented low energy measures ourselves.’

### Overview

**Property age & type:** 1930, semi-detached house

**Wall type:** Solid brick

**Floor area:** 167 m<sup>2</sup>

**Cost of retrofit:** £150k

**Occupants:** 2 adults

	Energy kWh/m <sup>2</sup> /yr		Carbon kgCO <sub>2</sub> /yr	
	Elec	Gas	/m <sup>2</sup>	/person
Before				
After				

### Key features

#### Insulation

- External solid wall insulation
- Insulation of converted loft
- Floor insulation

#### Glazing

- Double-glazing throughout

#### Heating/energy

- Zone heating, room thermostats & TRVs

#### Lighting

- LED or CFL lightbulbs throughout
- A-rated appliances

#### Water

- Dual flush cisterns



### Low Energy Measures

#### Insulation

We had external solid wall insulation installed on three sides of the house with grant support from the Council’s [Action on Energy](#) scheme. Brick slips added the lower front wall add interest and provide continuity with neighbouring properties.

The converted loft has insulation in the roof, with roll-down insulation in the eaves. Floor insulation is the latest addition, and we’re planning to upgrade our draught proofing.

#### Glazing

We’ve installed double-glazing almost throughout the house since moving in. We wanted to keep the original stained glass window in the front door, so fitted heavy curtains behind the door to retain heat in the hallway.

## People Exploring Low Energy Homes



### Heating/energy

The gas boiler and radiators work in tandem with the Honeywell S-Plan plus zone heating system. This allows us to control heating and domestic hot water temperatures independently, and control temperature in different rooms by means of programmable thermostats.



### Materials

We always wanted to use natural materials such as solid wood floorboards, slate flooring and wooden replacement windows. We reused a French door salvaged from a neighbour, having another made to match.

### Lifestyle change

We now maintain lower heating temperatures, wearing warmer clothing indoors rather than turning the heating. We grow our own vegetables, compost and save water.

### Performance

The renovations have performed as anticipated. Every aspect was thoughtfully worked out. We are now able to set lower heating temperatures while maintaining comfort.

### Future plans

We plan to upgrade our draughtproofing, and doubleglaze the window in the front door.

### Professional Contacts

[George Davidson Architects](#)  
251 Mill Road, Cambridge CB1 3BE

[KH Construction](#)  
31 Godwin Way, Cambridge CB1 8QW

### Products and Costs

[C Ridgeons](#) (Cambridge)  
[Urban Plastics](#) (Melbourn)  
[Travis Perkins](#)  
[Plumb Center](#)

External solid wall insulation cost: £9.4k  
(£6k met by an [Action on Energy Cambridgeshire](#) grant).