

People Exploring Low Energy Homes

Huntingdon Road, CB3 0HH

Leemya & Peter McKeown:

Leemya and Peter bought this large semi-detached Victorian house in June 2005. Home to 10 residents, the house itself was previously used as halls of residence for Cambridge University students, which they bought to let. Although they run a renewable technologies business, they purchased the property prior to developing their interest in renewables. The rising cost of heating and electricity provided the initial incentive for the eco-friendly renovation, and sparked an enduring passion for energy saving and renewable technologies. The property is a great example of what can be achieved by landlords in their rental properties.



Overview

Age, Type: **Victorian, Semi-detached**

Wall type, Floor area: **Solid wall, floor 295m²**

Project timescale: **8 months**

Cost of build: **TBA**

(EPC estimated to have improved from an E to a B)

Key features

- Internal wall insulation
- Double glazing on rear window
- Draft Stripping
- Radiator reflectors
- Repairs to sash window to make air tight
- Low energy lighting
- Pitched 300+ loft insulation
- Flat limited insulation
- Room heaters
- Programmer, room thermostat and TRVs
- Micro - CHP boiler
- Battery storage
- Solar PV

The Building Process

As the home is a period property they were keen to ensure that any renovations did not detract in any way from the original features. After a bit of consideration, they were able to develop a plan that was not only sympathetic to the character of the building, but has saved it from further degradation. The technologies installed should also save significant amounts of energy and work for the long term.



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Low Energy Measures

Leemya and Peter were in the fortunate position to be able to use the knowledge, skills and team from their company to complete the project.

Insulation and heating: Internal solid wall insulation has been installed though the property and both pitched and flat roof and loft insulation has been used to decrease heat loss. The house now runs on a micro-CHP (combined heat and power) boiler and the original sash windows have been repaired to help make the house air tight. Low cost improvements such as draft stripping and radiator reflectors bounce the heat back towards the centre of the room.

Lighting and technical: The property has been fitted with low energy lighting in all the fixed outlets and a programmer has been installed for room thermostat along with thermostatic radiator valves (TRVs) in each of the rooms.

Performance

Leemya and Peter will be able to discuss this more on the open days when they have had a longer period of time to collect data, however they anticipates there will be significant reductions in both fuel bills and carbon savings. They have previously installed a similar system at Cambridge University with very good results.

Future Plans

They are planning to install solar PV and battery storage into the property in the immediate future. Their own residence has also been renovated using renewable technologies and although they does not have any other renovation plans at the moment they are always keen to explore how they can improve upon what has been done and how they can further reduce their environmental impact.

Professional Contacts

Leemya and Peter founded Cernunnos in 2006. They are experienced UK renewable energy consultants, suppliers and installers of renewable energy systems for domestic and commercial clients.

