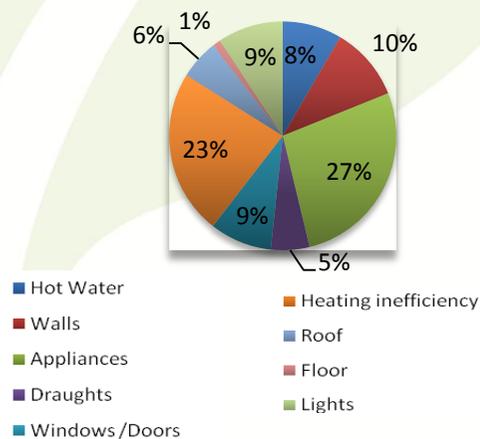


CASE STUDY: 4 BEDROOM EDWARDIAN END-TERRACE, TUNBRIDGE WELLS



Where are the energy costs in this house going?



COMMENTS ON THE PROPERTY

The property is a south facing three storey semi-detached house, built 1904.

WINDOWS

All the windows are single glazed, with most of them being fairly loose sash windows.

WALLS

The property has solid brick walls which provide relatively little thermal insulation. There are also some walls into the loft crawl spaces that are either solid brick or old original lath and plaster. Although these will not be losing heat as quickly as the solid walls due to the temperature buffer effect of the crawl spaces, they will still be losing lots of heat and are also relatively easy to insulate.

ROOF

Much of the roof is a flat roof that has been modelled with no additional insulation installed, as would be typical given the age of this roof.

HEATING

The central heating boiler is very old and inefficient. - around 65% efficient compared with modern boilers which are usually about 90% efficient. It is connected to a hot water cylinder which has thin spray foam insulation.

LIGHTS AND APPLIANCES

Most of the light fittings have been changed to Compact Fluorescent Lamps (CFLs) however some Incandescent lamps remain. There are also many halogen lamps which can be replaced with LEDs.

CLIENT: SARAH BAILEY

CLIENT FEEDBACK:

"The report has helped galvanise us into addressing certain aspects of the house that needed maintaining or upgrading, which we had been avoiding.

Seeing the payback in terms of time (i.e. years) as well as CO₂ emissions and financial savings is a very useful way to demonstrate it.

The section of the report "Sequencing of work" was extremely helpful in guiding us in which order to carry out work. For example, we were decorating the hall and so we added internal thermal insulation to the flat roof whilst we were doing that.

We have had a brilliant service in terms of longer term support and follow up. We have asked specific questions on changes to be made over a year after our consultation and report and have received prompt and fully researched answers."

Summary of Bespoke Recommended Packages for this Property

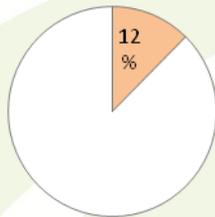
Based on the client's budget, ambitions and timescales we group different measures that we evaluate into bespoke recommended packages in order to show their net effect. This is a high level summary of what could be achieved with the packages we have put together for this property.



No Brainer

Annual saving:	£273
Total cost:	£785
Payback:	3 years

Annual CO₂ saving



Measures that have paybacks shorter than 5 years and cost less than £400 each:

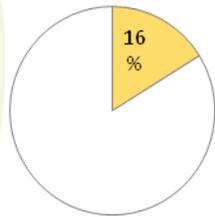
- Insulate the floor of the crawl spaces in the top floor with 300mm of mineral wool insulation or equivalent
- + 6 other measures



Some Consideration

Annual saving:	£368
Total cost:	£1,805
Payback:	5 years

Annual CO₂ saving



Measures that have paybacks shorter than 15 years and cost less than £500 each.

All 'No Brainer' measures PLUS:

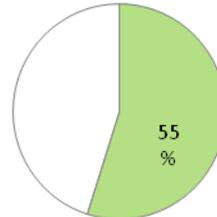
- Change remaining incandescent lamps to CFLs
- + 2 other measures



Green Halo

Annual saving:	£1,130
Total cost:	£15,955
Payback:	14 years

Annual CO₂ saving



Measures that have paybacks shorter than 25 years and cost less than £10,000 each.

All 'Some Consideration' measures PLUS:

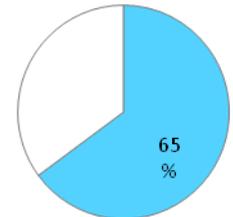
- Replace the boiler with a top specification condensing boiler with a weather compensator
- + 5 other measures



Green Halo + PV

Annual saving:	£2,041
Total cost:	£25,955
Payback:	13 years

Annual CO₂ saving



Measures that have paybacks shorter than 25 years and cost less than £10,000 each.

All 'Green Halo' measures PLUS:

- Install ten 250W PV panels horizontally on the flat roof (Figures include revenues from the Feed In Tariff)

*Note: These measures, plus others, have been or will soon be carried out.

This is just a snapshot of a **Home Energy Masterplan**. The full package gives you a detailed break-down of the different building elements along with your home's existing energy and CO₂ profile and how you compare to similar homes. It then presents the analysis of a large a range of energy saving measures across all aspects of your house and how you use it, including estimated costs, £ savings and CO₂ savings, that can be applied to the property and sorts these into bespoke packages depending on your specification. No other product on the market offers such a deep and bespoke analysis of your home.

For more information on the process or to arrange a survey please call our office on 0208 874 6433, or fill out the online enquiry form.

