

Retrofit – work on an existing building to make it more energy efficient.

Example 3 Victorian Semi-detached in Garforth



What had you done already? (House bought in 1980)

1980 - 2020

- **Damp Mitigation** – Improvements to damp course. Installation of two pumps in the cellar to pump out flood water, funded by government grants
- **Double glazing** – Replacement of three old, double-glazed units and of single pane skylights with Velux windows
- **Roof** – Complete retile
- **Hot Water** – Solar thermal, installed in 2006 but disappointing performance.
- **Lighting** – Gradually switched to low energy bulbs over the years

2020 onwards inspired by growing personal awareness of the need to conserve heat and power

Front door – Improved fitting of this period feature and added internal curtain.
Effect: Still not airtight but less draughty.

Back door – Replaced entirely.
Effect: Kitchen now appreciably warmer.

Windows – Replaced with vinyl sash windows all round (two flat and one bay).
Effect: Incredible improvement from the original and very draught prone fittings.

Internal insulation – Ceilings boarded and skimmed in study and attics and outer attic wall insulated too. Windows in these areas replaced and floors recarpeted with extra depth underlay including stairs. We have installed black out blinds around the new sash windows both to keep heat in, in the Winter but also to help keep it out in the Summer as overheating is becoming an issue due to climate change.

Effect: These areas cosy now and appreciably warmer.

Heating – After much research we opted for a new gas boiler as best option for our house and budget. This replaced our 50% efficient old boiler and comes with a smart thermostat allowing much better control of the system.

Effect: Too early to say. We are trying to keep to around 18.5 degrees but it is too early to know yet whether this will sustain us through a cold winter.

What have you considered since taking independent advice?

We mostly did our own research and found the following good sources of advice.

Clearly budget is a big issue and we were fortunate to be able to commit a lot of resources to these improvements over the years which would not be the case for every household.