



Report on Visit

House holder: C Sennett

This report is based on the information provided during the visit on 31 July 2009. It picks up on items that have been highlighted as area of concern and gives information and guidance on measures to improve matters. General energy saving advice and further sources of information are attached as a separate sheet.

Items of note

The most striking item is the very large gas bill. Gas is used for cooking, space and water heating:

Space heating:

This is largely through a gas powered furnace with ducted warm air. There are likely to be a large heat losses through the duct work as there is only 25mm insulation to most of the ducts. The ducts pass through unheated attic space and are also cast into oversite concrete.

Water Heating:

The current method of water heating is by a gas fired burner but this needs to be replaced as it is leaking. There are several options here:

1. As the roof faces south and you would like to consider renewables, a solar thermal installation could be very efficient and could be topped up by an electric element in the tank. While electricity is not an efficient method of heating water it is cheap to install but you would need to get sensible estimates of how much topping up would be required.
2. A gas standard type boiler with a tank which would allow solar thermal to be incorporated. More expensive installation than option 1, but lower running costs.

Draughts:

There are some significant gaps around the windows in the glazed area. Drafts are the cheapest and usually the cheapest way to increase comfort and reduce heating bills and these gaps should be filled with insulation and then sealant. It would also be worth checking around all doors and windows when windy and installing draught proofing to any as required.

Loft insulation:

Currently there is 100mm between the ceiling joists except where there is boarding where there is none. This should be increased to the recommended minimum of 270mm or 300mm as a sensible upper limit. We discussed different varieties with Sheeps wool being your preference but this is much more expensive than rockwool or fibreglass. Ecoearth by Knauf which is mineral fibre but bound with a more ecological material is currently on offer at Homebase. The insulation should run at right angles to that already installed. It would be best to lift the boards and insulate between the ceiling joists. If a very efficient board such as Kingspan is used this would be the equivalent of 200mm of "normal" type. To top up to the equivalent of 270mm you could then lay 50x50 battens perpendicular to the joists and infill with 50mm Kingspan before relaying the existing boards.

Where the air ducts are close to the joists you should insulate over them and even remove the insulation between the duct and the ceiling . This means that the air in the duct remains at room temperature and so will lose no additional heat as it travels along the duct. But you need to make sure no gaps are left. The two large ducts to the glazed sitting room extension should be wrapped separately with as much thickness as is possible to achieve. With both the flow and return duct being 1m in surface area, the heat loss is substantial. Alternatively you could consider blocking these off and fitting a screen or heavy curtain to the room for use when the stove is not running. It may be worth doing this temporarily and monitoring the situation for this coming winter. The review next year.

Any ceiling down lights should not be covered with insulation as they could overheat. Similarly, electrical wiring should not be buried in or under the insulation.

Loft insulation in the extension. In this area there are soffit vents at the edge of the roof along the eaves which are to provide good ventilation in the roof space. It would be best to maintain flow through the vents using special eaves vents designed for the purpose.

Floor insulation:

Currently you have 25mm insulation below floorboards. This should ideally be increased to the depth of the joists as you could be losing 10-15% of the heat through the floors. You could consider doing this if you have the carpets replaced. If this is too much disruption for you then consider draught proofing along the skirting boards if or when you have the carpet replaced.

Grants:

There may be special deals. Look at the web sites on the attached general advice sheet.

NEXT STEPS

1. I can help finalise what you wish to do and also help with the actions.
2. Once the work has been completed, I would like a follow up meeting or a telephone discussion to find out if there were any problems and how we could improve the service.
3. I would also like some feedback after a winter heating season to find out what differences you have noticed.

Please contact:

Deb Turnbull
01684-567196
deb.turnbull@tiscali.co.uk