



## Great Ayton – A New Home



### Information on this home

This home was purchased by the present owner as new in April 2011. No additional features have been added but it is a good example of what may be available in a modern home.

The end-terrace house was built by Yuill Homes of Hartlepool but the business ceased trading in April 2014.

The Energy Performance Certificate shows a SAP Rating of 87 in Band B. The house was built with filled cavity walls and loft insulation probably thicker than the minimum requirement. The only recommendations in the EPC are to install low energy lighting and to add a solar photovoltaic system but part of the south facing roof is taken up with the solar thermal system so that is probably not a practical suggestion.

No information is available on installation costs for this home as everything was provided by the house builders.

### High specification heating



The Alpha CD Condensing Boiler uses mains gas to provide central heating and can provide hot water when required. The unit above the boiler is an

Alpha GasSaver. This is a passive flue gas heat recovery device that extracts heat from the hot flue gases that are usually exhausted into the atmosphere. The reclaimed heat is used to pre-heat the cold water supply.

**Manufacturer:-** Alpha heating Innovation, Sevenoaks

[www.alpha-innovation.co.uk/](http://www.alpha-innovation.co.uk/)

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*Details of products and installers are provided for information only and cannot be considered as endorsements by Moor Sustainable*

## Renewables: heat

The Alpha SolarSmart 90 is a complete system designed to integrate with the Alpha Combination Boiler. Hot water from the thermal solar collector on the roof is pumped through a heat exchanger in the airing cupboard next to the hot water storage cylinder. Water in the cylinder is pumped through the heat exchanger to pick up heat. When a hot water tap is turned on water from the cylinder will go direct to the tap if the temperature is above 60 °C or via the boiler if below. The solar system is permanently turned on so that even in the winter available solar energy is always used to pre-heat water.



The heat exchanger adjacent to the hot water cylinder in the airing cupboard.

## Energy use and running costs:-

Gas use for the year 2014 was 2355 kWh costing £222 to provide all hot water and heating. This is much lower than for a typical 2 bedroom home. As the system is integrated it is not possible to apportion savings to the efficient boiler, the flue gas heat recovery or the solar thermal system.

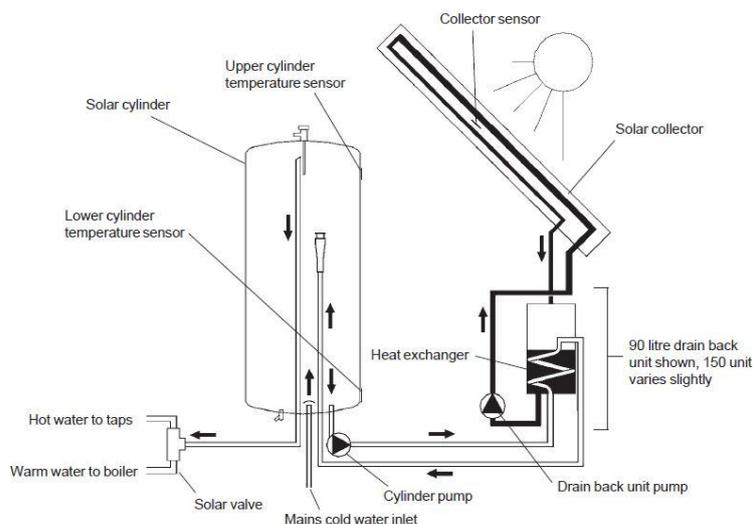
## Water saving and composting

The house builder provided a water butt that collects water from the rear gutter to water the garden. They also provided a composting bin

## Personal insights

The home owner was looking for a new home in Great Ayton that would have low energy use and be cheap to run. This home has met all expectations.

The solar thermal system is left to run all of the time. It is quiet and unobtrusive but does provide some heat input all year round. Very little gas is needed to supplement it between March and September.



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