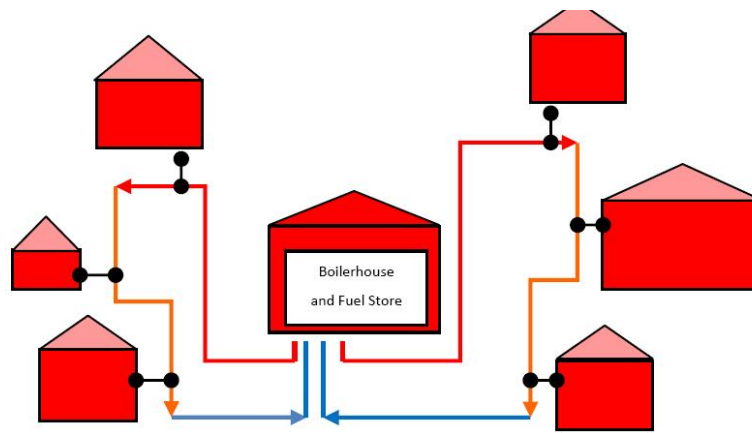


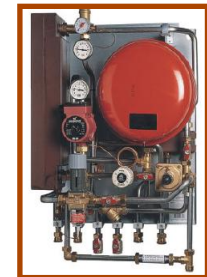
# What is District Heating?

**Imagine** that besides your electricity, mains gas and water supplies entering your home or property from an underground network (that supplies your neighbours too) a supply of hot water was available as well for central heating and domestic hot water! **Imagine** also that, like the other services you already receive, the hot water was circulated to you (and all others on the network) from a local, central source, in a similar kind of way that your existing home central heating boiler does to your radiators. (That is, the hot water flows round your home pipes to each radiator, and subsequently returns cooler to the boiler, for it to restore the heat used at each radiator) **Imagine** too that the main, underground, hot water pipe coming in to your home has two smaller, insulated pipes inside it one of which is hotter than the other because you have used some of the heat. So, having allowed you to take as much heat as you wanted for your needs, the cooler hot water returns through the underground network to the central source. This, in brief, is a district heating (DHS) system or scheme, which could be shown like this simple diagram from Community Energy Scotland:



A district heating scheme with two loops serving six properties

**Imagine** now, if you will, that the hot water network has to be kept separate from your home system, and so each home or property has to have a DH interface unit (DHI) which does this and looks quite like your existing, wall-mounted, home boiler and is about the same size. This unit supplies both your central heating and domestic hot water needs from the same box of tricks! Included with it is a hot water meter on the network side which measures how much heat you have used and is the amount you are charged for, say monthly by the company who operates and maintains the central source (Energy Centre) and the network.



**Imagine** next that the Energy Centre company instead of using gas or oil to heat the hot water boiler, uses local wood (waste) resources which enables it to not only provide you with a more secure supply, but also to charge you less than rising alternatives which you use at present.

**Imagine** finally that a University of Sheffield researcher is undertaking a pre-feasibility study freely for Sustainable Youlgrave to see if such a scheme is possible in Youlgrave in the future to supply both heat and electricity --- for them to operate. And guess what: he has been and published his pre-feasibility study findings in 2010! Unable to complete all the necessary research and analysis because of his doctorate requirements, SY have issued an enquiry to do so and have received responses for which they are now seeking funding for the successful independent consultant to do just that. The study will include finding the tipping point when the escalating cost of conventional fuels for household heating in the community surpasses that for switching to an alternative wood-fuelled DHS.