

Residential Retrofit

Power-Pipe self-build retrofit case study



Client: Andrew Rose

Andrew is a Chartered Engineer and founder of Llanbury Consulting Limited, which offers guidance to people looking the maximise the environmental benefits of energy saving technologies within the domestic and commercial environment.

As a keen energy-saving enthusiast, Andrew chose to install a Power-Pipe Waste Water Heat Recovery system as part of internal redesign of his 1909 Edwardian home and here is his story so far.

Why did you choose Power-Pipe WWHRS?

"I had originally wanted to put a Waste Water Heat Recovery System in to our home a few years ago, as part of the Green Deal but struggled to find an installer.

"Then the opportunity arose again as part of an internal redesign of our family home, which involved moving the existing soil stack, so I decided to do it myself.

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"With a large Edwardian house, energy costs can be substantial, especially when you have three showers and six people using them, so any potential savings are worth considering.

"The simplicity of the Power-Pipe design stood out to me as it has no moving parts or components so doesn't require any user interaction.

What Power-Pipe model did you use?

"I chose the R4-84, which was the biggest model I could fit in to the available space, as all the showers in the house could run down it making it even more cost-effective. The Power-Pipe was installed in the final section of the main soil stack on to an internal wall with the heated water fed to all showers and the hot water tank."

Have you noticed any benefits of using this system?

'We saw a real difference the moment the Power-Pipe was installed as the hot water tank could supply more showers between reheats and there was also shorter reheat cycles overall.

"It feels like free energy once you have it in and will hopefully continue to do so for the next 50 plus years because it's made entirely from copper and built to last."

Was installation easy?

"Apart from its weight- as you can imagine over two metres of copper is quite heavy, installing a Power-Pipe is a perfectly doable DIY job for someone with good plumbing skills and an understanding of the pipe runs that need to go to the hot water system and the showers.

"I have included a flowmeter and temperature sensors with it so will also be monitoring the Power-Pipe's performance over the next year, however, in the absence of data, I can tell you that simply seeing the difference in the shower flow and the return feed from the Power-Pipe shows that it can recoup a significant amount of energy.

"It's also become a mini art exhibition amongst our guests. Although we had planned to box it in, we ended up leaving it accessible so people could see it, so it's become a great topic of interest amongst the visitors and tradesmen who come by."





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