

Property Information Sheet



Name and Address

Sharon and Ian
Barns Lane,
Marchamley,
SY4 5JU

Property Description

Detached brick-built house completed in 2000.

What changes have you made to your home / what green features did your home come with?

Property was built to building regulations at the time which included 100mm loft insulation, cavity wall insulation and some floor insulation. This however is nowhere near today's standards. The windows and doors were replaced in the last 7 years with A-rated double glazing. Having recently changed from oil heating and hot water system to an 11kW air source heat pump (ASHP), we then added a 7.5kW solar system with 13.5kW Tesla battery along with an electric vehicle (EV) charger. Our heating controller allows us to set times and temperatures as it integrates with the Octopus and NetZero Automation apps. The NetZero app controls our EV car charging, battery and solar, helping us to manage our energy and savings, ultimately making us greener whilst saving money. Most of the lighting has been upgraded to low energy LED lighting including upstairs downlights. We have also made other lifestyle changes such as updated electric appliances including induction hob, freezer, TV, and a battery powered lawnmower. Additionally, we investigated various energy smart tariffs and selected one suitable for our needs which helps us save money and supports renewable energy usage.

Why did you make these changes / choose a home with these features?

Our oil tank needed to be replaced, and our oil boiler was not very efficient and over 25 years old. We could have simply replaced the tank and boiler for a more efficient one, however from a sustainability and cost point of view we thought of alternative systems. We decided that an ASHP was the best option for us, especially as there was a £7,500 government grant on offer for an ASHP. We also decided that a solar and battery storage system made sense from a financial and sustainability viewpoint. We thought to add an EV charger as we figured we could charge an EV from solar or using low-cost tariffs which reduces the cost per mile to run the car.

What were the approximate costs of each of the changes you made?

To be shared during visit.

What have been the approximate energy savings?

LED lighting has saved roughly 90% of energy used by lighting. It is early days with the ASHP, but our expectations are it will be similar or slightly lower costs compared to the previous oil-based system. Regarding the solar and battery system, our target is to have a yearly net energy bill of £0 (excluding EV) with significant reduction in our CO2 emissions. Based on calculations for the solar and battery system, it is estimated that they will have paid for themselves in 7 to 8 years.



What have been the benefits to you / your home?

There has been a reduction in energy and transport costs, and we feel that we are contributing to a more sustainable future. We have a warmer and healthier living environment with less draughts and a reduction in heat loss.

Who undertook the work?

Windows and doors – Trotfield Windows Ironbridge and Banbury Windows
ASHP – Plug Me In via Scottish Power
Solar, battery and EV charger – Evo Renewables
Other works like lighting, appliances and insulation were done by us.

Would you recommend them?

Yes, the companies have been professional with good aftercare support services. We particularly recommend Evo Renewables; their whole approach was excellent.

What else would you like to do?

We are in the process of adding more loft insulation. We are also waiting for an Octopus Energy Mini to arrive which should provide more insights into energy usage. We continue to take energy efficiency into account when selecting appliances and continue to optimise the energy eco system by making better use of smart tariffs and apps such as NetZero.

Have you considered any measures but rejected them? Please give details of what and why.

We considered a wind turbine however this was not practical due to both planning regulations and the height required. Increasing floor insulation was considered but we found that it is too expensive and disruptive for us.

Any further comments?

The ASHP system is running with radiators with 10mm microbore, not 15mm or 22mm pipes. We found that you can learn a lot from YouTube, however it is only when you visit properties with systems installed that you really start to understand what it looks like, the advantages and the installation progress. We recommend treating the topic as a journey and have a clear goal in mind.

Visiting instructions / information

Email Sharon via sharondonald41@hotmail.com to book your visit.