



As part of continued efforts to minimise energy bills and embrace a resource-efficient lifestyle, Ed Webb, sustainable expert and director of leading solar supplier, Metgen, made the decision to embark on a much-needed project to renovate his family home.

By prioritising environmentally-friendly building materials and embracing the most efficient sustainable technologies, Ed has since reduced utility bills by over 50%, lowered ambient energy consumption by nearly three-fold and ensured his property meets the highest standards of green building regulations. In fact, the renovation is so resource-efficient, Ed claims to run his entire house and hot water for six months of the year without even turning the boiler on!

“Making my home eco-friendly has always been a key priority and something I was keen to invest in,” commented Ed. “Our business aims to support installers in helping homeowners around the country reduce their utility bills by specifying resource-efficient solutions, so when planning an extension to my own house in Milford, I made the decision to lead by example - fully embracing the renewable lifestyle and substituting mains supply with green alternatives.

“By considering the renewables aspect of the project from the beginning we were able to optimise systems and installation at every turn ensuring that what we ended up with was powerful, flexible and future proof.

“Alongside replacing the roof and fully lagging the loft and filling cavity walls with eco-friendly insulation, we installed ultra-efficient double glazing and LED lighting throughout the house to reduce energy consumption. To cut bills even further, we replaced all our appliances with AAA standard green alternatives, as well as specifying and installing a 2.5kW domestic rooftop solar PV setup to self-generate our own supply of green energy.

“To work alongside the PV installation, we considered a number of different options to optimise the free energy generated by our solar panels before specifying the immerSUN – an automated microgeneration switching device, capable of reducing energy bills even further by prioritising the use of renewable energy within the home.

“The immerSUN works in partnership with our solar setup, monitoring renewable supply and diverting surplus power, which would normally be exported to the grid, to storage and space heaters. In the case of our home, this means that 100% of PV-generated green energy is prioritised to power resource-efficient elements in the immersion heater, underfloor heating and

bathroom towel rails. This reduces energy usage significantly and ensures that our solar panels are always powering our home, rather than exporting green energy back to the grid.

“Since installation, the device has allowed us to maximise self-consumption of the natural resources produced by our PV setup and come back to a warm house every evening. What’s more, as the device is fit-and-forget, the switching process is controlled completely automatically – reducing payback time on our investment and saving over £250 every year from our already reduced utility bills.

“All in all, the project has been a huge success, allowing us to reduce reliance on mains supply, slash energy bills and minimise our carbon footprint. Going from a typical four-bed house to an energy-efficient green development has been surprisingly simple – all it took was a clear consideration of new technologies and renewable alternatives to make switching to renewable energy work for us.”