

Extending your home? Seize the ideal opportunity to decarbonise.

In [a recent article on the April Energy Saving Trust Newsletter website](#) a graph vividly sets out the challenge facing householders in the journey towards net zero carbon emissions. In 2017, heating our homes was the biggest household contributor towards CO₂ emissions – the average household generated 2745 kg of CO₂ per annum from heating. To achieve net zero by 2050 we need to cut emissions from heating to 138 kg per annum, a staggering 95% reduction!

The CO₂ is emitted as a result of heating our homes and hot water with fossil fuels such as natural gas and oil which emit CO₂ when burnt, and we will only reach net zero if we stop using these fuels and transition to renewable energy.

However renewable energy is difficult to produce in the quantity needed to replace all the uses to which fossil fuels are put, in the timescale available to us if we are to have any hope of avoiding the worst of climate change. In step with increasing the supply of renewable energy, we also need to reduce the energy we use in our homes, the biggest component of which in older buildings is winter heating. Most homes in Kingston are part of a local building stock whose energy performance desperately needs to be improved; the vast majority were built before the 1980s, after which standards of insulation in walls, floors, windows and roofs began to improve significantly. So, although new homes are already being built to higher thermal standards, multiple times better than most older housing, we need to do something about our existing homes.

There is no legislation in sight to help homeowners address this – the Green Deal was abandoned by the new Conservative government in 2015 and no alternative is currently being discussed. While there are significant savings in energy bills to be made by reducing winter energy consumption, the high costs of carrying out low-carbon domestic retrofits are unlikely to convince many people to proceed.

However, there is a major opportunity to improve the energy performance of your existing home when you are considering extending it, especially if you are thinking of significant work involving side and rear extensions over several floors of the property. Every week there is at least one Planning Application proposing significant work of this type to a house somewhere in the borough of Kingston. Building Regulations require extensions to be built to the same high insulation standards as new buildings – but there is no requirement to make energy performance improvements to the rest of the property.

However, this is the best time to also make wholesale energy-efficiency improvements. Alterations on such a major scale almost always involve a new boiler and major work on the heating and electrical systems, as well as new kitchens and bathrooms. Despite the extra initial outlay, it is much more cost-effective and less disruptive to carry out energy-efficiency improvements while you have builders in, than to leave it to later (or perhaps never). The outcome could be that your entire home would not only provide better living conditions in terms of increased space and modern design, but also the benefits of a low carbon lifestyle and much-reduced energy bills. While the numbers of improved properties would be small, fifty extra low-carbon homes per year would be better than none and would help to build up the skills we need in anticipation of a wider roll-out of energy-efficiency measures as the climate deteriorates and the urgency for action becomes ever more obvious.

Many of you will have heard of EPCs (Energy performance Certificates) which must be produced when properties are sold, and which give homes an A to F rating with costed recommendations for improving the energy performance of the property. Most older houses in the Kingston Council area

are E to D rated (flats tend to have slightly higher ratings), but to be fit for the future, ratings for houses should be C or B. There is an awareness nationally of the need to raise these standards, and legislation may eventually emerge which either encourages better ratings through tax breaks or which punishes lower ratings through prohibitions on rent or sale. This is worth considering as another argument for improvements while carrying out other works. It is also the case that if EPCs are prepared while works are being carried out, credit can be gained for significant but unobtrusive measures that could later be missed and ignored.

I have created a leaflet to explain this idea and am working with a local provider of EPC Certificates, [JJP Energy](#) to issue the leaflet on their behalf to householders and their designers making planning applications. If you or someone you know might like a copy of the leaflet please [contact me](#) and I will send you a copy either in paper or electronically in PDF format.

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