

Thursley Climate and Sustainability Action

Eco-friendly Living – it's Eco-logical



This is the second article about “low carbon” energy use options. Last month we looked at the replacement of oil or LPG fuels with *renewable* energy options. We will consider several other options this month, some of which are already being applied in Thursley parish.

We looked at air source heat pumps last month, but another option is a **ground source heat pump**. Ground source heat pumps extract heat from the ground using pipes buried underground. It's also possible to use a water source, such as a stream, as the heat source. The heat extracted is then used to heat radiators, underfloor heating systems, warm air heating systems and hot water for your home. Heat pumps are powered by electricity but are typically 3 to 4 times more efficient than conventional electric heating due to recovering energy from the ground or water. They are most environmentally friendly when used in conjunction with solar PV panels, or a renewable electricity tariff. You can also combine it with a new oil (or LPG) boiler in a *hybrid* system. They are available with generous subsidies from the Renewable Heat Incentive (RHI). They are typically more expensive than stand-alone boilers, or air source heat pumps, and you do need a reasonable area of ground or water that is accessible. The economic payback is reasonable as you are no longer paying for oil and get an RHI subsidy – but also your greenhouse gas emissions are significantly

reduced. You would need to have a design prepared by a qualified installer to evaluate the option.

You might also consider heating your home using **biomass** such as wood. This can be a good, cost effective and environmentally friendly way to heat your home. Biomass heating comes in various forms, from small woodburning stoves, to automated wood pellet boilers, and so can be suitable for a range of budgets. Biomass heating can burn logs or pellets to heat a single room or they can be used to heat hot water, as well as work with the existing radiators. Using wood as a fuel source is classed as renewable and low carbon because it only releases the same amount of CO₂ that it absorbed by the tree whilst growing. However, it is important to source wood as locally as possible to reduce transportation emissions and also to ensure that the wood is harvested sustainably. Wood boilers are available with generous subsidies from the Renewable Heat Incentive (RHI). While they are more expensive than oil boilers the economic payback is reasonable as you are buying wood/wood pellets which is (usually) cheaper than for oil and get an RHI subsidy – but also your greenhouse gas emissions are significantly reduced. You would need to have a design prepared by a qualified installer to evaluate the option.

Use the link to Action Surrey to get more details about the ideas presented in this

article. **These changes could reduce your carbon footprint by up to 50%, so they're important.** If you want more information about these ideas or help, please contact jdsswift.thursleypc@btinternet.com.

[https://www.actionsurrey.org/improve/renewables/Ground source heat pump](https://www.actionsurrey.org/improve/renewables/Ground%20source%20heat%20pump)

<https://www.actionsurrey.org/improve/renewables/biomass>

