

From Energy Fair to Action at Home

A Sustainable Energy Fair in the Village Hall on 28th November 2009 gave villagers a lot of useful contacts, so here are most of them, and others for you.

Whatever your problem with making your home efficient there will be an excellent advice sheet on it downloadable from the Government funded Energy Saving Trust at www.energysavingtrust.org.uk. Make sure you understand the potential benefit and likely cost before engaging a commercial company. Sort your priorities from the point of view of comfort, capital cost and annual expense savings. When you do decide what you want to do, and can afford this year, consult the official list of approved installers on <http://www.devondare.org/>

Insulation & Draft Proofing

This is the basic action that should be undertaken before anything else is done, otherwise you will not get the full benefit from other investments in your house. People in older houses, particularly those with solid walls, often make no attempt to insulate anything but the roof space (should now be at least 11 inches deep), but there are ways of dealing with even solid walls either by exterior or interior lining techniques. For some reason these are not covered by grants, but in spite of the expense it is worth having your house appraised for the options and likely savings once installed (around £400 for a 3 bed detached). Remember that typically 33% of the heat loss of a house is through the walls, 26% through the roof, 18% through the windows, 3% through doors, 12% through ventilation & draughts and 8% through floors. Some of these are very cheap to deal with, and roof insulation and cavity wall filling is grant assisted, and free for certain groups - have a free assessment (Liam Dowling Rockwool lives in the village 01752 873236, liam.dowling@rockwool.co.uk or contact the Energy Saving Trust).

Ventilation Heat Recovery

Relevant to making your house draft proof, is the conflicting need to have enough fresh air to maintain a healthy environment within the house. This aspect was covered by a talk on Heat Recovery Ventilation Systems. These pass filtered fresh air from the outside through a heat exchanger where 90% of the heat from the stale outgoing air is transferred to it, so conserving the heat within the building. These systems can be combined with an Air to Air Heat pump which extracts extra heat from the outgoing air. This is so important in well sealed houses that I do not understand why their installation is not obligatory in modern housing. In spite of them being unusual here are a number of suppliers providing a wide range of very different systems www.totalhome.co.uk, www.villavent.co.uk/, www.admsystems.co.uk/ .

Low Energy Lighting

People often don't like low energy light bulbs, but we had a demonstration which showed that the latest generation is very much better than before. Not only can almost every type of fitting and bulb type be accommodated, but they are brighter, light up quicker and come in soft white light "colours". They certainly last very much longer than incandescent bulbs, up to 50,000 hours in the case of LEDs at a fraction of the current, which more that offsets their cost in a short time(Giles Boardman 08000438893 www.efficientlight.co.uk)

Solar

One of the talks dealt with a range of micro-generation options (William Garnier 07912274187, william.garnier@microgeneration.com). At the moment there is a short window to put in "sustainable" systems at less cost than usual. This is because the government is changing its

incentive scheme from a capital grant to one of much more generous paybacks for those who generate “green energy” and sell the surplus to the grid. Until the end of March 2010 you can still get a grant of £2,500 for solar voltaics (which generate electricity) or from a wind turbine. From April onwards the grant system changes to a greatly enhanced Feed in Tariff (FIT) which turns micro-generation into an investment! **Between now and April you can get both the grant and the enhanced FIT.** An example would be 16m² of solar voltaic panels would be expected to generate 1800kWh per annum, giving a revenue of £927.30. Capital cost is £10,454 less grant of £2,500 = £8,477 (VAT only 5%) so that return on investment is about 11% - better than most at the moment! Several variables will change this calculation, but in your favour. The first is that energy prices are likely to go up considerably in years to come, making your saving even greater, while the official calculations on sunlight was taken in the midlands, and the South Hams is much sunnier. In fact an installation in Yealmpton last spring achieved its estimated generating target after only 7 months! The pay back time should therefore be well within 10 years and as the guarantee on the plates is 25 years and the FIT is paid at the same rate that you enter the scheme for the whole of this period, it soon becomes a welcome profit. There is no maintenance as there are no moving parts. As long as the plates don't project more than 10cms above the roof, even in a conservation area, no planning permission is required. Additional solar contacts: www.chrisrudge.co.uk, www.becosolar.com, www.naturalwatt.com, www.sungiftsolar.co.uk.

Wind

Planning permission is however required for a wind turbine. We saw a new type of domestic turbine at the fair – known as a Vertical Axis turbine (Gordon White 07765 995991, www.vertexrenewables@gmail.com). This has several advantages over the traditional Horizontal Axis type, in that it is less obtrusive, more attractive, is much quieter and is more efficient at low wind speeds and in turbulent winds. If a 5kW wind turbine is properly located in a sufficiently windy spot it could return the investment in 6years. Note that Les Bradbury has developed a computer programme to assist you in working out if any particular turbine in your situation would be cost effective see www.wind-power-program.com.

Rainwater Harvesting

A talk was given on Rainwater Harvesting, and how it could be used safely after filtration & sterilisation in the house as well as outside It is likely that a return on investment of under 5 years (contact 01296 633000 www.kingspanwater.com or www.envireau.co.uk) is possible with current escalating water charges. If you are about to lay a new patio or digging up the garden for an other reason take the opportunity to sink as large a water tank (>6,000 Litres) as you can under it and feed all your down-pipes from the roof into it. They will provide you with all the plumbing and electronics necessary as a package, including filters and Ultra-Violet sterilizer so that it can be used for everything except drinking giving a huge reduction in your water and sewage bills.

Peter Brown Jan 2010