Llandrindod Wells & District U3A Lecture Meeting June 2017

A Home for the Future

Report by Clive Barrett

The Chairman introduced Nick Talbott, the speaker for the morning, stating that he was a local U3A member, and among his duties he was "our IT wizard". His lecture was entitled "A Home for the Future". Nick stated that he he would be showing a lot of pictures. He started his talk with facts about climate change, emissions, architectural design and Trosnant. He said that the UK is committed to reducing carbon emissions, which is becoming increasingly challenging. Buildings are the biggest users of energy, and as we like homes warmer than in the past and turn up the heat, it all makes one wonder where the energy goes. Nick then referred to the "Passivhaus" concept, which includes insulation, air-tightness (controlling air flow, stopping draughts), using mechanical ventilation with heat recovery(MVHR) and making the best use of solar gain and waste heat. He posed the question "Why are not all new buildings up to Passivhaus standards?". He then spoke about the challenges upgrading existing houses.

Nick then went on to describe his own project of a 1970's bungalow with garage underneath. The speaker described how he changed his bungalow to solar heating and other alterations, including thick insulation of walls, floor, and roof and solar panels on the last named, triple glazing but not main structurl changes. The work also included reducing window sizes, air tightness and testing for air leaks. He also mentioned the installation of the mechanical ventilation system and plans for using solar gain and other energy sources - the balance of wanting light in the winter, but not in the summer.

The speaker mentioned the wood burning system with totally sealed stoves, solar hot water system, solar panels, LED lighting, and 'rainwater harvesting" to reduce the need for mains water. These all add up over 70% less energy usage compared with other similar-sized houses in the first year, their net annual bill being approx £300/ In identifying further room for improvement, he mentioned battery storage: storing surplus energy from solar PV panels to provide a reserve for overnight storage. There was also scope for additional solar water storage.

This was an excellent lecture, and not surprisingly at the end Nick was asked a good number of questions very relevant to the lecture by the large appreciative audience of U3A members. As Chairman Berwyn commented in his vote of thanks, Nick's report of the progress of his project had held everyone hooked over the whole lecture.

The speaker at the next U3A lecture meeting next Monday (10th July) at the Metropole Hotel at 10:30a.m will be the Rev Eldon Phillips - "The Rugby Reverend: Chaplain to Llanelli Rugby Club - The Scarlets".