

Drum Housing Association

'Way of the Sun'

A low carbon housing development at Whitehill, Bordon, Hampshire



Images from the 'Way of the Sun' project



Caroline Lucas, MEP, with the 'Way of the Sun' team

Notable Features

Environmentally friendly homes with a unique solar roofing system.

Setting the scene

This development used an innovative roofing system which provides for both the heating and hot water needs of the families living in these two homes. The roof itself is made from recycled aluminium. This development saw the installation of the innovative "Sunergy" solar hot water and space heating system. While the entire roof has a conventional appearance, it is in fact filled with fluid and in thermal contact with the atmosphere. It takes the heat from the air, upgrades it via a solar energy processor – a heat pump – and produces the homes' entire central heating and hot water needs. The system even functions in cloudy or freezing conditions and is insensitive to orientation, and saves an estimated 3 tonnes of carbon emissions per property a year – cutting fuel consumption by about 50% per home.

Beating the odds

Recognising that heat pumps, while an efficient means of upgrading low grade heat, can still consume the same amount of electricity as a fridge, we decided to install a small array of Photovoltaic (PV) solar electric panels to move towards the goal of carbon neutral housing;. We have also future-proofed these homes in that, should certain predictions of global warming come about, the system can also be upgraded to provide comfort cooling in the homes.

Reaping the benefits

Chapel is one of the "Feature Fifteen" schemes that have been chosen to celebrate The Housing Corporation's Design Week, which starts on Monday 14th May and kicks off a six months focus on design for affordable housing across the country. In October 2005, Running costs for heating and hot water last year were on average £250, providing affordable warmth. As a social business Drum is very pleased to ensure its residents are not in danger of falling in to fuel poverty. Drum is confident that this development helped them win the Housing corporation's prestigious Gold Award. The first use of the system was Drum's 'Evergreens' development also based in Whitehill, which won the award for 'the Best Integration of Renewable Energy in a Community Development' at the South East Sustainable Energy Partnership (SESEP) at the Renewable Energy Awards and was showcased to over 200 delegates. Drum believes that by building on this experience it can deliver homes fit for purpose both now and in to the future.

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