

Case Study: Bournville Trust, Shenley Redevelopment

Description: 142 properties with 200 ThermaTwin Solar Thermal Panels

Location: Bournville Village, Shenley, Birmingham

Application: Social Housing

Client: Bournville Village Trust



Over 200 ThermaTwin panels have been installed in the Village

The Challenge:

The Shenley redevelopment project utilised part of the original Bournville estate and involved the demolition of unsuitable, energy inefficient three storey blocks of flats. The initial phase of the redevelopment was completed early in 2005 and provided the community with 54 new homes, shops and a large medical centre, in a landscaped environment.

ThermaTwin were approached by Bournville Village Trust in 2003 who asked us to design a suitable solar water heating system, which would also be eligible for a Clear Skies Community grant. 16 properties were designated to have solar thermal installations, each of which houses a minimum of 5 tenants.

The Solution:

ThermaTwin panels were fixed above existing tiled roof surface on a mixture of two & three storey properties. The panels were painted to match the chocolate coloured roof tiles.

CHN construction, the mechanical and electrical contractor for the project, carried out the installation of the ThermaTwin systems. Their engineers and management staff attended a one day installation training course.

The collectors are connected to a Gledhill Boilermate open vented thermal store unit and direct SolarPod, which acts as a separate solar store below the primary heated Boilermate, ensuring the coolest water is drawn up into the panels. The thermal stores provide mains pressure hot water to the taps.



The results are much appreciated by the residents of Bournville



Mr. Champaneri at the village in Bournville

The Result

The panels are mounted 45 degrees from horizontal. Each ThermaTwin system is generating approx. 100kwh per annum (net) to the taps. As mains gas is the primary heating fuel being displaced, the total CO₂ saving for the 16 solar systems at Shenley will be approx. 4000kg/annum.

“At BVT we have over 200 panels installed, for over 5 years and have had great reports from the tenants. Barring a few teething troubles at the initial install which was quickly ironed out by the manufacturer; the solar thermal panels have given us no problems and have been practically maintenance free. We can easily see us using more of them on future projects”

Hitesh Champaneri
Development Manager