

Ubbink solar in-roof mounting system meets PV requirements for council bungalows.



Project

Hawksley Bungalows,
Sawston & Duxford,
South Cambridgeshire

Contractor

Fosters Property
Maintenance – Fosters
Renewable Energy,
Wisbech,
Cambridgeshire

Customer

South Cambridgeshire
District Council

➤ Case Study: solar in-roof mounting kit

Ubbink's in-roof solar mounting system has been used on thirty seven bungalows for a sheltered housing scheme with South Cambridgeshire council at Sawston & Duxford.

The project was carried out for South Cambridgeshire District Council, by Foster Renewable Energies Ltd, of Wisbech, following a successful trial installation on one of the bungalows on the site.

James West of Foster Renewable Energies, said: "The planners at South Cambridgeshire DC had expressed an interest in an in-roof type mounting for the bungalows - and we were able to show examples of previous similar projects we had undertaken using the Ubbink mounting system.

LOW PROFILE INSTALLATION

The Ubbink in-roof mounting system ensures an attractive low profile installation that blends into the roof without detracting from the character or architectural integrity of the building.

James West continued: "We like the system as it can be installed on

the majority of roof coverings without any component changes. Modules can be installed portrait or landscape, with design and delivery all within our desired time frame. Ubbink also offers good site support if needed. Having installed over 100 Ubbink in-roof PV systems to date, with excellent service from Ubbink, we would not look anywhere else for this type of project."

All the bungalows on the site are the 'Hawksley' type prefabricated bungalows developed in the immediate post-WW2 period to provide much needed housing commissioned by the Ministry of Works in the late 1940s and 1950s.

HELPING COMBAT FUEL POVERTY

The solar PV arrays formed part of a refurbishment programme at the site and were specified as part of a scheme to combat fuel poverty in the Cambridgeshire area.

Lightweight coated steel tiles had been specified to provide an attractive and cost-effective roofing on the bungalows. The system does not sit as flush as a typical Ubbink in-roof system, due to the Decra shallow profile, however still gives an aesthetically pleasing finish to the roof.





Left and below images
During installation. The Ubiflex flashing can be seen at the base of the array.

Bottom image
Jack Minster of Ubbink, with Andrew Walker of Foster Renewable Energies, following completion of the project

AESTHETICS AND PRACTICALITY COMBINED

However, the Ubbink in-roof system allowed a low-profile mounting solution for the modules – an important aesthetic consideration as the roof areas on the single storey buildings are very visible at ground level.

Les Lazell of South Cambridgeshire District Council said: "With a project of this kind there are many factors to take into account. We were keen to minimise the visual impact of the PV arrays, but also wanted a practical and fully compliant solution, hence the decision to trial the system before rolling it out to all the properties. The trial was extremely successful and we are delighted that the project has now been completed within budget and timescale."

Suitable for most pitched roofs from 15° to 70°, the Ubbink Solar in-roof system is designed for mounting and integrating most sizes and types of photovoltaic (PV) modules with tiled or slate roofs. The characteristic uplift resistance of the system as tested at the BRE, with two rails and five mounting blocks per rail, is 1759.5Pa*

On new roofs, the Ubbink Solar In-Roof system reduces cost as tiles or slates are not required below the PV array.

The system is supplied with a unique in-roof waterproofing roll, which is laid across the battens and fixed before the fixing rails are fitted. Flashings and soaker details can be fabricated using Ubbink's non-lead Ubiflex flashing material. This method was used by the Foster Renewables installation teams at Sawston and Duxford. Ubiflex gives the appearance of traditional building materials like lead, but is lighter, completely non-toxic and up to 50% quicker to install than lead.

The Ubbink in-roof mounting system is guaranteed for 10 years, providing installation has been carried out correctly.

*NB: For coastal areas with higher winds a higher wind uplift figure can be achieved by adding extra rails



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