**Case study: 01**
**Solar Shingle roof installation**

Raleigh Road is the first house in the UK to have a roof made from Solar Shingles. The shingles are similar in appearance to conventional roof tiles, making them one of the most aesthetically appealing solar technologies.

The total 'active' area of solar electric shingles on the roof is 26.5 m2: 17.5 m2 on the south-facing section, 9m2 on the north-facing section. The 'non-active' areas are covered with slates recycled from the original roof. The spaces on the edge of active area on the south-facing section are made up of dummy shingles to give the roof a uniform visual appearance.

| | |
|---|---|
| System size | Total installed power is 1.63 kWp. 1.088 kWP on the south side, 0.544 kWp on the north side. |
| Technology | 96 United Solar SHR 17 shingles made up from thin-film silicon cells. |
| Inverter | SMA SWR 700 inverters. |
| Installation | 5 days (including the removal of the old roof and the conversion of the loft into a living space).The electrical installation took place at the same time. Work involved building a deck on the existing rafters, installing a layer of felt and then fixing the shingles on top. |
| Cost | Approximately £8-9,000 / kWp. (Including roofing work.) |
| Grid connection arrangements | Grid connection witnessed by Seeboard. Seeboard pay 4p/kWh for every unit of electricity exported. |
| CO2 saved | Approx 850 kg per annum. |
| Comments | Electricity consumption has been cut to a minimum by the use of low-energy lighting and appliances. The roof generates more electricity than the house uses, making Raleigh Road a true solar power house. |



