



CASE STUDY

**Homeowner
Braughing,
Hertfordshire**

**Solar PV modules
mounted on two
pitched roofs. Fitted
with optimizers to
maximize output
throughout the day.**

Providing power for a domestic property

This homeowner spent over a year looking into various renewable energy options that would be the best fit for the property. After much deliberation, they decided that Panasonic solar PV panels, fitted with SolarEdge optimizers split across two roofs would generate the most electricity throughout the day.

Chelsfield Solar were employed directly by the homeowner to carry out the complete design, supply, installation and commissioning of the 14 panel PV system from the modules right back to the main distribution board. Working on two south-facing pitched roofs, Chelsfield Solar installed and commissioned the PV system in January 2016.

Following this installation the homeowner's next door neighbour also had Chelsfield Solar supply, install and commission a solar PV system for their property.

Chelsfield Solar Project Role

Specialist PV system contractor employed directly by the homeowner. Detailed PV system electrical and mechanical design, supply, installation and commissioning. Specialist advice and support to register for the Feed-in Tariff (FIT) scheme.

Technical Specifications

- 3.99kWp PV system comprising 14 x 285W Panasonic Hybrid PV modules fitted with SolarEdge P405 voltage optimisers connected to a SolarEdge SE3500 grid-connected inverter.
- System faces south and is tilted at 50°.
- G83 single phase mains connection into the consumer unit with excess energy exported back to the grid.
- The system is expected to generate approximately 2,885kWh of electricity per year, saving annual emissions of 1,526kg of CO₂.
- Voltage optimisers fitted to each panel to maximise performance of system when shaded.
- SolarEdge online monitoring enabling each PV panel's performance to be viewed independently and monitored.

