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CASE STUDY

Domestic installation
Hatfield, Hertfordshire

Solar PV modules mounted on a new build property's garage roof. Fitted with voltage optimizers to maximize each individual panels output

Providing power for a domestic property

This domestic homeowner purchased a new build property and wanted to improve efficiency by installing solar PV. After consulting Which? Trusted Traders, they contacted Chelsfield Solar.

The homeowner was presented with various types of PV systems available for comparison on their south facing pitched garage roof and decided on LG 300W monocrystalline panels fitted with SolarEdge optimizers. A Solar iBoost was also installed for heating the hot water tank with any excess energy produced by the solar PV system before being exported back to the grid.

Chelsfield Solar were employed directly by the homeowner to carry out the complete design, supply, installation and commissioning of the 12 panel PV system from the modules right back to the main consumer unit. Working on a south-facing pitched roof, Chelsfield Solar installed and commissioned the PV system in June 2015.

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

- 3.60kWp PV system comprising 12 x 300W LG monocrystalline PV modules fitted with SolarEdge P300 voltage optimisers connected to a SolarEdge SE3000 grid-connected inverter.
- System faces south and is tilted at 35°.
- G83 single phase mains connection into the consumer unit with excess energy exported to a Solar iBoost for hot water before being exported back to the grid.
- The system is expected to generate approximately 3,355kWh of electricity per year, saving annual emissions of 1,770kg of CO_2.
- 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.