



Case Study

Magnetic Shields

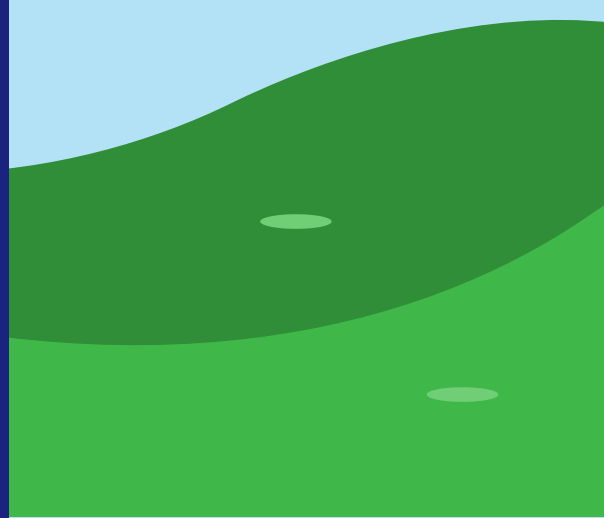


Summary

- **Location:** Staplehurst, Kent, England
- **Capacity:** 0.25 Megawatts
- **Type:** Manufacturer – rooftop and ground mounted arrays
- **Designer and installer:** The Little Green Energy Company
- **Owner:** Magnetic Shields Ltd
- **Panel type:** SunPower Maxeon 5 430W
- **Completion date:** April 2023



The Little Green Energy Company, now part of the Hometree Group, is dedicated to helping UK homeowners reduce their carbon footprint by providing tailored renewable energy solutions. With a focus on customer understanding and expert installation, financing, and maintenance, they aim to empower households to embrace sustainable living.



Overview

Magnetic Shields, a leading specialist in the production of magnetic shield material, came to The Little Green Energy Company (TLGEC) to install a commercial solar PV system on their new factory project in Staplehurst, Kent. As a significant consumer of energy, TLGEC provided designs that would help the family-owned company generate their own power, reduce their reliance on grid energy, and work towards net zero targets.

TLGEC, based under 15 minutes away in Colliers Green, Kent, has been designing and installing renewable technology projects since 2014. The Managing Director of Magnetic Shields, David Woolger, was keen to work with TLGEC as a local company and experts in high quality, reliable renewable solutions.

Along with other measures to reduce their carbon emissions including installing heat pumps, Magnetic Shields had more than 1200m² of roof and ground space to mount solar panels to help them achieve net zero.



Project Summary

As a very high consumer of electricity, Magnetic Shields wanted reduce their energy expenditure as well as their dependence on drawing power from the grid, and operate more sustainably as a business. They were keen to work with The Little Green Energy Company as local experts in the design and installation of renewable energy technology.

It was a very complex site with several hurdles to overcome, including unforeseen global supply issues with products. There were issues with components in some product batches but these were all replaced under warranty. These challenges were overcome and the system is operating above and beyond expectations.

Outcomes/Solution

TLGEC installed a four phased PV installation with a total of seven PV array at Magnetic Shields' large commercial industrial premises between 2019 and 2023. They installed a combination of roof mounted, flat roof and ground mounted systems on pre-existing buildings and newly constructed units.

- Site total installed DC power – 323.07
- Site total achieved AC power – 245.30
- Solar System Size kWp: Site Total – 245.30

Panels:

SunPower Max 5 430-COM / SunPower P6 500 COM

Inverter:

9 x SolarEdge inverters



In 2019, Magnetic Shields had the initial array of solar panels installed on their new building, and according to their Managing Director David Woolger, it's been the best investment they've ever made as an organisation.

It paid back in under one year, and they've been able to use all of the power generated on their site, which means they're not exporting any to the grid.

In total, since TLGEC installed the solar PV, Magnetic Shields has generated 563 megawatt hours of electricity, which is over £200,000 pounds worth of electricity (as at May 2024). They've also offset more than 101,000 KG of carbon emissions since early 2022.

Local Benefit

- Magnetic Shields were able to get as close as possible to net zero, due in part by the solar PV installation as well as other measures
- Long-term energy security
- Significant financial savings



Learn more about what's happening at The Little Green Energy Company at www.tlgec.co.uk



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