

Moving Out of the Shade And Into Solar

CHALLENGE

Unavoidable shading issues prevented maximum solar production on both roof surfaces

SOLUTION

Separating the array by installing eight modules per roof space

RESULT

The 4kW system achieved great power production despite the challenging circumstances



“Working with Enphase Energy means we are free to design systems that meet client expectations despite shading and without the constraints of string design.”

— Thomas Newby
Managing Director
The Phoenix Works

When electrical engineer Allan Davis wanted to install solar panels on his house and garage roofs, Enphase Energy provided the best solution.

Shadows Over Solar

Mr. Allan Davis, an electrical engineer living in Leeds, UK, recognised that installing solar panels on his house would be an excellent way to take control of his energy bills, whilst doing his bit for the planet. Incentivised by the financial benefits of installing solar, Mr. Davis was keen to achieve a 4kW system to reduce his electricity consumption and maximise returns from the incentive scheme. However, his house and garage had limited roof space, a problem compounded by shading issues.

The Only Viable Solution

Having assessed Mr. Davis' house and garage, The Phoenix Works, a UK installer of energy saving technology, concluded that each separate building would accommodate eight modules. Enphase Energy presented the best solu-



Mr. Davis' split roof array meant Enphase provided the only viable solution for maximum power output.

tion, negating difficult, and potentially dangerous, long Direct Current (DC) cable runs and reducing the shading affect from the chimney.

If not for employing the Enphase System, this installation would have required two distinct string inverters since it would not be practical (or particularly safe) to run DC from the garage back to the house. In addition, as with most real-world situations, there is some shading from the adjacent chimney. Mr. Davis had obtained a handful of quotations before approaching The Phoenix Works, and no other installer had suggested an optimised solution, nor had they noted that the shade would have a significant affect.

The Phoenix Works installed two distinct systems on each roof, both cabled back to a single generation meter at the supply origin. Given his profession, Mr. Davis fully appreciated the merits of the Enphase System when he was presented with the solution. He was also able to install ducting from the garage to the house, thereby reducing the cost of installation.

Mr. Davis achieved his objectives and now realises great power production despite the challenging circumstances. The Phoenix Works have had extremely positive feedback as a result. Mr. Davis provided a glowing report and has recommended both the installer and Enphase to colleagues and friends.

The Phoenix Works was the first UK installation partner for Enphase Energy and have been involved with them since they first entered the UK market. They now install the Enphase System almost exclusively.

INSTALLATION SUMMARY

Client **Mr. Allan Davis**

Location **Leeds, UK**

Installer **The Phoenix Works**

System Size **4kW**

Microinverters **Enphase M215**

Modules **JA Solar - JAM6-60-250**

About Enphase Energy

The Enphase System revolutionizes solar power generation with industry-leading technology innovation. Enphase's proven micro-inverter technology maximizes production of each module, which works together with advanced communications hardware and an intelligent software platform to deliver a reliable, high-performance solar array.

To find how Enphase can help cut your energy bills and carbon footprint, visit enphase.com/uk.