

# CASE STUDY

## Southampton, UK, 50kW

### DESIGN FLEXIBILITY FOR MAXIMUM ROOF UTILIZATION

*"The design flexibility enabled by the SolarEdge solution allowed us not only to utilize five different roof aspects but also to save Balance of System cost and generate more energy even in partly shaded areas"*

Malcolm Davidge,  
Technical Manager,  
Empower Energy



#### Modules:

– 200 x JETION 250w

#### Power optimizers:

– 100 x OP600 (2-to-1)

#### Inverters:

– 3 x SE16k

## OPTIMIZED COMMERCIAL SYSTEM

### Maximum Design Flexibility

Module-level optimization by power optimizers and the fixed input voltage maintained by them allow unprecedented design flexibility. With only three inverters, this 50kW system is installed on three different roofs with five different tilts and orientations. This amounts to a significant reduction in inverter, cabling, combiner box and fuses costs.

### More energy with module-level optimization

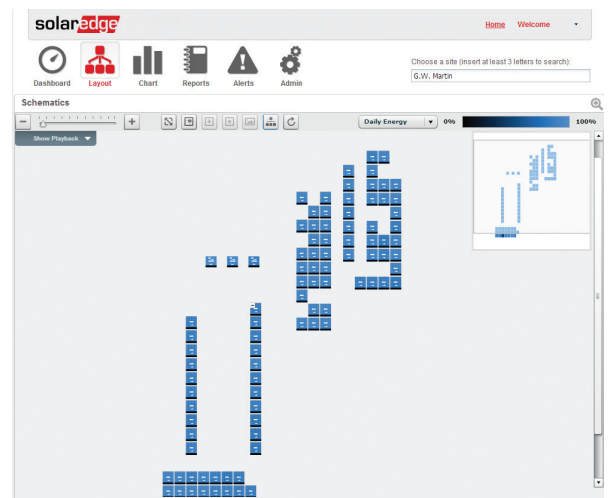
Module-level MPP tracking performed by the power optimizers allows generation of maximum energy from every module. Modules on different roof facets and even of different roofs will have different MPPs but will each generate the maximum energy possible. Partially shaded modules in this installation will generate less energy due to the reduced irradiance, but will not affect the performance of neighboring modules.

### Cost Effective Maintenance

Physical representation of the system layout on a virtual site map allows real-time, accurate, remote troubleshooting. Underperforming modules are quickly identified and can be treated to immediately improve the system's performance.

### Superior DC Safety

The unique SolarEdge solution guarantees ultimate safety for installers, maintenance personnel, firefighters and other emergency forces. DC voltage is automatically shut down whenever AC power is off, providing safe roof at all times.



*"Physical layout of the different roof aspects enables quick and easy identification of module underperformance for enhanced maintenance at lower cost"*