



Sandwell Academy

Sandwell Academy which is located in West Bromwich opened in 2006 and educates in the region of 1,350 students from Year 7 through to the 6th Form. The Academy is part of the Thomas Telford Multi Academy Trust which was established in September 2017.

Kembla have already installed Solar PV at the sister school, Walsall Academy, so with a similar perfect set-up for Solar PV, Sandwell Academy decided it was time to investigate ways to reduce their annual energy consumption.



The process

Kembla was invited in to assess the feasibility of the school and design a PV system to help reduce electricity usage.



What we did



Kembla supplied and installed a 304.85kWp system maximising the curved roof on the building. The existing plant room provided perfect conditions for the installation.

A SolarEdge modbus device was also installed to allow the school full import and export monitoring.

Another great feature which Kembla installed was the SolarEdge firefighter gateway. This device will signal the inverters into standby mode in the event of a fire. This further increases the safety of the system and was required by the school's insurers.

Total system:

- ✓ 670 x Longi 455w mono
- ✓ 5 x 50kW Solaredge three phase synergy inverter
- ✓ P950 power optimisers
- ✓ Modbus meter for import and export monitoring
- ✓ Fire fighter gateway
- ✓ Expected generation



Estimated production per year = **266MWh**

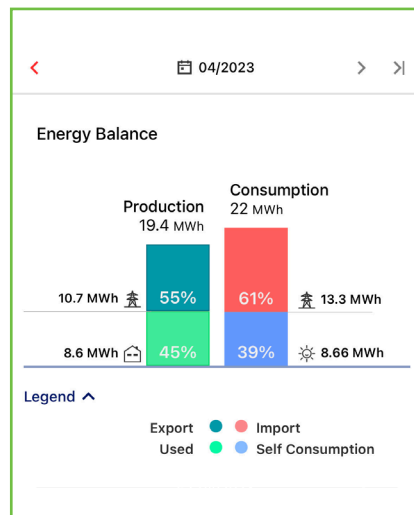
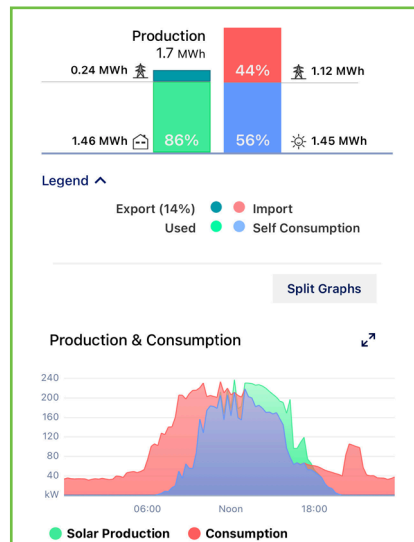


Equivalent trees planted: **2849**

This system is now expected to generate 265MWh per year which will result in a 24% reduction in electricity costs per year.

- ✓ 304kWp System
- ✓ SolarEdge inverters and optimisers
- ✓ Full import and export Monitoring
- ✓ Carbon reduction - 61t per year

This image shows the month of September 2022.



Key benefits



CO2 Emissions reduced by 62 tonnes per annum



266 MWh of annual energy production, equivalent to planting 2849 trees



4-5 year payback

