Montgomery Primary School

Exeter, South West UK

Technology: Solar PV
System size: 167.79 kWp
Annual Output: 166,000 kWh
Annual CO2 savings: 91,500 kg

The ground-breaking Montgomery Primary School in Exeter, as well as being the first Passivhaus school in the UK, was also the first “zero carbon in-use” school in Europe.

Designed on Passivhaus principles, the school achieves carbon neutrality thanks to its solar PV system which produces more electricity than the school consumes.

The 167kWp, 714 module PV system includes both a flat roof array and an integrated pitched roof system.

To ensure that the integrity of the Passivhaus thermal envelope was maintained, a framing system was designed to allow the main body of PV to be attached to the southerly pitched rear roof.

The overhanging design not only positions the solar modules at an optimal inclination but also provides summertime shade for the classrooms below.

From a financial perspective the solar PV was an excellent investment. Annual electricity bills at the school are now £0, with excess generated electricity providing a small additional income.

Solarsense

> **“ The practical experience gained in this project will prove invaluable for the replication of zero carbon projects on a nationwide basis.**
>
> Leo Critchlow - Devon County Council

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