

Lyme Regis Baptist Church – Solar PV Panels and LED



Grant
awarded:
£5,240.00

Estimated
Annual Savings
**£812 per year /
6 tonnes of CO₂**

Project cost
£13,100.05

Estimated Savings
£812 per year / 6 tonnes of CO₂ per year

Equipment / Installer
10kWp Solar PV array - Dorset Energy Solutions,
20 LED Light fittings – Rattenbury Electrical

The Project

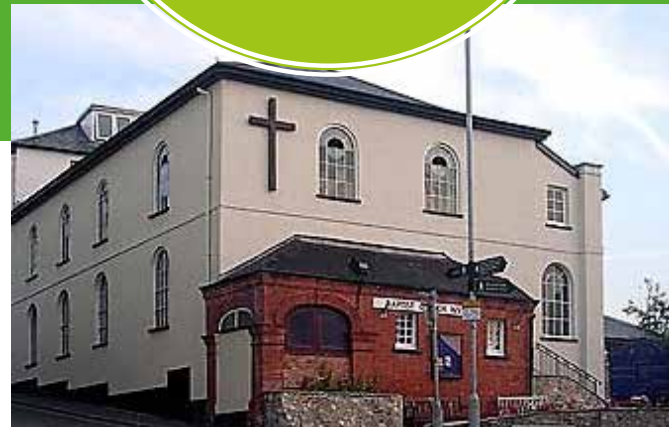
Centuries old, the Lyme Regis Baptist Church and its community are leading the way in the green energy revolution, with environmental considerations embedded deep within their values. Only the second church in the UK to be awarded the Bronze Eco Church Award (beaten only by St. Paul's Cathedral), the church currently holds a Silver certification and is always on the lookout for ways to further reduce their environmental impact.

With the help of a Low Carbon Dorset grant, the Church has installed a 10kWp array of Solar PV panels on two of their buildings' roofs and replaced old inefficient lighting with LEDs.

Getting started

As part of the Church's drive to be as eco-friendly as possible, Lyme Regis Baptist Church contacted Low Carbon Dorset to find out how they could further improve their energy efficiency and reduce energy use in their busy church hall buildings.

After a site visit by Low Carbon Dorset technical officer Erik, it was quickly identified that there were energy saving and renewable energy opportunities yet to be explored.



Solar PV Panels:

Recommendations from both an external Solar PV installer and Low Carbon Dorset led to the Church installing a 10kWp solar photovoltaic (PV) rooftop array at a cost of £10,280. It is estimated that the panels will generate just under 10,000 kilowatt hours (kWh) each year. If the church can use 100% of the energy generated this would lead to an annual saving of around £1.3k. The hall's current electricity use has been calculated at 13,500 kWh, with the buildings being mainly used during the daytime by local community groups.

LED Lighting

Although some of the church's lights had already been swapped to much more efficient LED lighting, 21 older, less efficient, light fittings remained in the church's entrance, toilets, and exterior. These lights were replaced with 20 LED fittings at a cost of £1,921.71. This simple swap is estimated to reduce their electricity bills by £190 a year.

Other recommended measures:

Further recommendations highlighted in the energy report included replacing the existing gas-fired boiler with a hybrid air-source heat pump. Encouraging even more of a move away from fossil fuel dependency. Given the age of the buildings this would be a complex project which may be more financially feasible for the Church as part of future refurbishments or system upgrades. Improved insulation of the buildings' lofts, and basic insulation of hot water pipes, were some other simple low cost measures that were recommended for further energy savings.



"The amount of help and advice that we received from Low Carbon Dorset was incredible. This project was an essential part of our outlook – the financial gains were a very welcome, but secondary, benefit."

Duncan Wood, Lyme Regis Baptist Church