

Climate Change Fund Case Study

Photovoltaic Solar Panels and Loft Insulation

The first community group to receive funding from the Mayor's Climate Change Fund was **Pavenham Village Hall and Playing Field Charity**. The charity applied to the fund in July 2010 and in September 2010 was awarded **£8,084.50** match funding to install **loft insulation** and **solar photovoltaic (PV) panels** on the roof of the sports changing rooms, adjoining the village hall sports field.



*Photovoltaic Panels on Pavenham Village Hall
Sports Changing Rooms*

Costs:

- Installation of a 3.84 kWp solar photovoltaic system consisting of 16 panels = £15,540
- Installation of 150mm (6 inches) of fibreglass loft insulation = £629
- Total project cost = **£16,169**
- Contribution from Climate Change Fund – 50% match-funding = **£8,084.50**.

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Savings:

The installation of the solar photovoltaic (PV) panels will:

- generate approximately **2,772 kWh** per year of electricity from a fossil-free source
- save approximately **1.55 tonnes of CO₂** per year, which will contribute to reducing the carbon emissions of the Borough
- save the charity approximately **£173** on their electricity bill and generate approximately **£1,243** through income from the Feed-In Tariff per year.

Loft insulation is a cost effective measure to install which will reduce the loss of heat through the roof which will improve the energy efficiency of a building, reduce energy consumption from heating and improve thermal comfort of users of the building.



Loft insulation being Installed in a Loft

The installation of the loft insulation will:

- reduce the charity's gas consumption by approximately **4,348 kWh** per year.
- save approximately **0.8 tonnes of CO₂** per year, which will contribute to reducing the carbon emissions of the Borough
- save the charity approximately **£173.91** on their gas bill per year.

In total, the measures installed should save approximately **7,120 kWh** of energy, **2.35 tonnes of CO₂** and save the charity **£1,589.91** on their fuel bills per year.

For the first year of its operation, the charity has reported that the solar photovoltaic system has generated **£1,536.98** from the Feed in Tariff and has resulted in a saving of **£155** on their electricity bill.