

Green Network for Businesses: Hilton Church and Lighthouse Community Café



Name: Hilton Church and Lighthouse Community Café

Property type: Church, hall and community cafe

Property age: 58 years

Area: Hilton, Inverness

Key features: Solar PV, solar thermal hot water, cavity and loft insulation

Energy rating: EPC = D

Total annual savings: £4,680

Hilton Church first embarked on an energy efficiency project in 2008 when developing the Light House Community Café. At that time they were able to obtain an energy efficiency report paid for by Community Energy Scotland. As a result of their various recommendations energy efficient lights and solar thermal panels were installed in the cafe. This was mainly financed by a grant of £3,000, with a contribution from the church of approximately £1,000.

Anne Thomas, 'Keep the Heat In' campaign, explains:

"There has been a saving of roughly 2,500 kWh a year for

the five years since the installation which reduces the cost of heating the hot water. It is difficult to estimate the savings from the low energy lights as we never operated without them but the T5 strip lights probably use at least half the conventional equivalent and the CFL spot lights in the foyer are probably about 20 per cent of the equivalent halogen lights. We have also replaced 40W bulbs in the standard lamps with 4W LEDs."

The church obtained a further report from the Energy Saving Trust in 2011. Anne says:

"From this we installed solar panels in the Light House at the end of March 2012 funded by a 90 per cent grant from Community Energy Scotland and a 10 per cent contribution from Church funds. These were not eligible for the Feed-in-Tariff scheme, but the savings from electricity used on site was predicted to cover the 10 per cent spent in about two years. At this stage it is difficult to be exact on the cost and carbon savings, but it looks like we have saved more than the panels have generated, indicating that the LED lights, and staff and volunteers being more careful, has also contributed to energy saving."

In addition to the hot water and electricity producing technologies, the church also implemented insulation measures:

1

Savings of roughly 2,500 kWh a year for the five years since installing solar thermal panels.

2

Installed cavity wall insulation and topped-up roof insulation.

3

Heating for the Church and hall has been reduced by 32 per cent.

“We also installed cavity wall insulation in parts of the café and the main church building and top-up roof insulation throughout the church buildings. This was funded by the same grant. The insulation and lower energy lights for the hall were funded by an interest-free grant from the Energy Saving Trust. The new doors for disabled access were also more energy efficient than previous ones.”

Furthermore, solar panels were installed on the church hall in August 2012. These were funded partly by a grant from the Church of Scotland and partly by a loan from the Energy Saving Trust. Taking all the measures together, the capital costs and the costs of loan repayments, the church has already saved around £1,870 and once the loans are paid off they will be saving about £4,680 a year. The electricity reduction in the Light House Café has already paid off the 10 per cent contribution made to cover the cost of the solar panels. The solar thermal panels are saving about £120 per year, although the church has not quite recouped the money spent on the solar thermal system as it replaces gas which is cheaper, and the system was installed prior to the cut off for the Renewable Heat Incentive (RHI). Savings are therefore purely from the

amount of hot water the system produces.

Heating for the Church and hall has been reduced by 32 per cent. There was a problem with the timer for the heating last winter so long-term savings are hoped to be greater and nearer the 45 per cent predicted. Electricity use for the church and hall has been cut by nearly half compared with the 40 per cent predicted. In terms of electricity generation and savings, this year looks likely to be above predicted level and they are on track to generate more than predicted and the Feed-in-Tariff scheme payments carry on for 20 years.

Overall, the energy efficiency measures for the church have already more than paid for themselves and they still have the benefits of two years of an interest-free loan.

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