



Belhaven Parish Church



Hall Heating Energy Saving Project

It all started back in 2009 we received a ECO Congregation Award. At this point we were concerned about the amount of energy used and wasted heating in the halls. We were aware that the old heating system was very inefficient and that the hall was badly in need of insulation through out . The Church Board were aware this would be a long term project. It would be costly but would have financial benefits in the end to the Church and reduce our energy use and our carbon footprint.

The first stage that took place in summer 2010 was to replace the old windows in the main hall area with double glazed units this cost £7,500. We also took further steps to replace some of the light units and bulbs in the property where possible with low energy replacements .



An energy & efficiency survey was carried out by Community Energy Scotland, this was arranged by BeGreen along with a grant from Community Energy Scotland the report looked at the Halls and the Church. This was completed in October 2010.

The next stage was for the Board of Belhaven to look closely at the report and see how they could improve our energy use and how to implement the recommendations. The first part was simple to further replace more light fittings and bulbs to low energy alternatives along with motion sensors to cut out lights being left on in the toilets and corridors. The final stage was to get estimates for the work highlighted in the report for boiler and heating replacement ,and for insulation of roof space and draught proofing doors this was completed by April 2011.

We approached BeGreen to help us with grant applications. The first was to Viridor which was for 75% of the cost of the work which came to £10,017 and BeGreen kindly agreed to be our third party for this application which was for the sum of £1,356 ie.10% of the grant application . They also gave us a further grant of £3,339 to improve our energy efficiency measures and reduce our carbon foot print.

These grants were all approved by September 2011 .

We then programed the work to start during the school October holiday week the major work was completed in this time scale. The final works were all completed within three weeks .

This is the old type of boiler



that was in the hall at the start of the works. It was coming up for 20 years old and was very inefficient .

The main contractor for heating system and boiler replacement was Heating Scotland who removed all the old system in the main hall, kitchen and foyer .

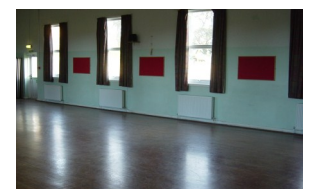
The existing boiler was replaced with a “ A “ rated Worcester Bosch Green Star Combi Boiler which also replaced the old emersion heater for hot water in the hall.



New soft line radiators were fitted throughout the hall with a room thermostat. No thermo valves were fitted on these 8 radiators to stop them being tampered with. It was decided this was the best solution for this part of the building to control energy use. The foyer, kitchen and toilet radiators all have thermostatic valves to control the heating.



A frost thermostat was also installed in the



coldest area in isolation from the boiler.

Lighting

All the lighting in the halls, Kitchen, foyer and toilets has now been replaced with low energy fittings and motion sensors to reduce wastage and our energy use.



Insulation Works

All the roof spaces throughout the hall, foyer area and kitchen had the old insulation up graded to 300mm of thick glass wool insulation. In the foyer and kitchen this involved removing the old tiled ceilings. Then new plaster board ceilings were fitted, painted and new energy lights and motion sensors were installed. The main contractor was McArthur of East Linton who arranged all trades for this work.

♦ THE SMALL STABLE HALL

- ♦ Had good insulation already installed previously.
- ♦ After Consultation with BeGreen the old night storage heaters were replaced with Energy saving timed Gel filled economy radiators.
- ♦ Lights and bulbs were changed to energy efficient types.

New Gel Heaters that were fitted in our small hall.



Thanks and conclusion

This work would not have been possible without the enormous help given to the Church by BeGreen and Community Energy Scotland. Grants received from BeGreen and Viridor.

The grants in total from Viridor was £10,017, BeGreen's grant included their 10% third party cost to Viridor, therefore BeGreen's grant was £4,695 in total. In total the Church to date including windows and low energy light replacements has put in £9.500 to the project to improve the energy used in our buildings. This work will reduce our energy used in our properties. Already it is showing in time required to bring halls up to a comfortable level of heating for the groups using it. Groups have commented on the comfort changes in the hall in the heating and in insulation of the buildings which has made it more comfortable for their use. The Board will closely monitor the savings made from this work and report back on this to our sponsors. Who gave us the grants for this important work to reduce our energy used and in the long term our carbon foot print in the Town.

Encouragement

The Board of Belhaven Church would encourage other community groups considering this type of work.

To talk to BeGreen and their partners for support in any energy efficiency work needed.

Without that help Belhaven would not have been able to proceed with all the work that has been completed to date.
