

Improving the Thermal Comfort of Parsonages in the Diocese of Liverpool

Executive Summary

The Feasibility Study set out to work with the Diocese of Liverpool to develop a methodology for the creation of parish energy action plans that established the energy efficiency improvements required to the 231 parsonages in the Diocese of Liverpool. In addition they assessed the potential to use the parishes' community leadership role to promote sustainable energy in the broader community by acting as case studies, and identify the opportunity for community leaders to become Energy Champions.

This used a highly structured approach including research, initial engagement, communication, and delivery. This approach led to the successful delivery of the study and rather than act as a limit it provided a flexibility within the structure that enabled issues encountered during the study to be overcome.

The Study was managed by Energy Projects Plus. The project partners were the Diocese of Liverpool Parsonage Department, Liverpool City Council, Warrington Borough Council, Knowsley Metropolitan Borough Council, Merseyside Energy Efficiency Advice Centre, Cheshire Energy Efficiency Advice Centre, Greater Manchester South Energy Efficiency Advice Centre and Lancashire Energy Efficiency Advice Centre.

To inform the study a questionnaire was devised to establish the energy efficiency of parsonages, taking into account their extended use for parish activities, and the level of interest in these issues among parish teams. SAP surveys were carried out to a representative 25 parsonages, with the findings analysed to determine the potential savings on fuel bills and reduction in carbon emissions.

The large response rate (49%) to the energy questionnaire demonstrated a keen interest in energy efficiency issues. Although the Parsonage Department has the responsibility of maintaining the parsonage buildings, it is generally the resident vicar who pays the fuel bills.

The study findings included:

- The use of the self-completion questionnaire can provide a reasonably accurate picture of the stock.
- Parsonages tend to be large, detached dwellings, the upkeep of which is controlled by a strict budget through a five-year maintenance programme by the Parsonage Surveyor.
- Parsonages are residential properties eligible for EEC grants (and in some cases local authority grants), however these had not been applied for.
- The most common type of parsonage is a 13 room detached dwelling with un-insulated cavity walls and a maximum of 150 mm of loft insulation.
- Fuel poverty is a serious risk, especially if the vicar's salary is the only source of income.
- Most parsonages used mains gas central heating systems with a good standard of controls. Only 2% were off mains gas and used oil as the main heating fuel. Few replacement boilers have been high efficiency which reflects budgetary constraints.
- The average SAP was 51, the average Carbon Index was 5.9 and the average annual running cost £1,306.80. SAP ratings after suggested improvements show an improved

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average SAP of 64, an improved average Carbon Index of 7.3 and the saving in average annual running costs ranging from £16 to £451.

- Projected carbon savings from measures to the Diocese's parsonages, using the Energy Saving Trust's carbon predictions programme, are 124 tC per year, though actual SAP data from the 25 surveyed parsonages identified a higher potential saving.
- The approach developed by the Study is viewed by partners as an effective way of developing community relationships, including in multi-faith communities.
- The majority of vicars requested further information about energy efficiency measures and indicated a willingness to be further involved in the Study and a subsequent Implementation bid

Parish Energy Action events were held in the 2 parishes whose parsonages were selected to receive energy efficiency measures. Energy Champions were identified to provide knowledge of potential ways to spread the word and educate the wider community. Through the commitment of partners a further parsonage in Knowsley received measures and is planning an event.

The energy efficiency measures installed to the 3 parsonages included cavity wall insulation, loft top-ups and hot water tank jackets plus low energy light bulbs. The measures were funded by Scottish Power, Mico Services Ltd, Powergen, Knowsley MBC and Energy Projects Plus and will reduce carbon emissions by 11.3 tC per year.

Through discussions with partners as part of the study the Parish Energy Action Plan will be used as a basis for extending the project to other faith groups and parishes as part of an Implementation Scheme.

The Implementation Scheme will promote energy efficiency and low carbon technologies by marketing the range of benefits (financial, environmental, social) of all measures and the grants and discounts available. The parsonages that receive measures through the scheme will be used as case study examples, with exact figures for savings quoted on publicity.

The geographic spread of the diocese and diverse communities they serve mean that a single blanket approach would be inappropriate. Delivery at implementation stage will need to be through a phased approach, which will take account of issues such as current levels of engagement, levels of interest in the parish, the potential for community engagement, opportunities for improvements to the parsonage, availability of local grants (especially those that are time limited) and the availability of local partner support.

The study has demonstrated the two-fold opportunity of the approach taken. The first is improvement opportunities to the parsonages themselves, with opportunity to replicate across all faith groups, and the second the potential offered by the parish communities taking direct action.

Through the study a momentum has built up, which if developed further would lead to a vibrant programme reaching directly into the heart of communities and achieving levels of action on a broad range of measures that could make a significant contribution to regional carbon reduction targets.