



Enrich Programme Summary Report



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1. Overview



The Enrich (Energy Reduction in Community Halls) programme ran from November 2011 to November 2016 with the aim of reducing wasted energy and carbon in Oxfordshire's community buildings. The programme was delivered by EiE at Oxford Brookes University and supported by the Trust for Oxfordshire's Environment (TOE2) and the Patsy Wood Trust. Community First Oxfordshire (formerly ORCC) also provided valuable advice through their Community Buildings Advisor.

The programme was developed by TOE2 and EiE, who had recognized a need for community building committees to understand more about the energy use in their buildings in order to make informed decisions about effective improvements. The primary method of delivery was through providing energy audit visits to 134 community buildings across the County and a subsequent recommendations report to each management committee detailing bespoke energy efficiency actions.

This summary report details the impact of the 5 year programme through analysis of feedback received from community buildings. In addition, throughout the programme there were a number of ancillary activities undertaken with the aim of increasing action on recommendations and promoting energy efficiency in the wider community. The report concludes with lessons learned and recommendations for continuing the benefits of the programme into the future.

2. Summary

In summary, between 2011 and 2016 the Enrich programme has:

- Provided audits for 134 community buildings.
- Saved an estimated 1,679 tonnes of carbon (CO₂e).
- Saved over £358,000 in energy costs for community buildings .
- Invested £87,780 into energy audit support returning a 4:1 energy savings from investment over 5 years.
- Collected feedback indicating that over 50% of the audit recommendations have been fully implemented, mainly through improvements to insulation and heating and addressing energy management practices.
- Feedback indicates a further 30% of recommendations are in the process of being implemented.
- Further improvements include an increase in use of community buildings and warmer and more welcoming community buildings.
- An additional 32 community buildings have been provided with other energy reduction support by EiE.
- In total 166 community buildings, representing approximately 50% of all of those in Oxfordshire, have been supported by the Enrich programme.



The good level of uptake in implementing energy efficiency recommendations is due in part to the availability of TOE2 grants, funded by Grundon Waste Management through the Landfill Communities Fund (LCF). The TOE2 board has found the energy audit recommendations invaluable in informing funding priorities, supporting £288,372 worth of energy efficiency improvements in 59 community buildings across Oxfordshire since the start of the Enrich programme.



3. Methodology for data collection

Feedback was collected from the community buildings as follows;

A feedback survey (Survey 1) was sent out electronically to all community building committees approximately 6 months after the EiE energy auditor had visited their community building and supplied a written survey report with recommendations for improvements (usually between 6 and 12 recommendations). Survey 1 questions asked the committees if they had completed or were intending to act on these recommendations. Response choices included: 'yes, completed, 'no, but intend to' or 'no, do not intend to'. For each question respondents could provide details on progress. A final question asked for any other comments.

A follow-up survey (Survey 2) was a copy of Survey 1 and was emailed to the committees in October 2016 to gather up-to-date data and for comparative purposes. Survey 2 included an additional question (Survey 2B) regarding their building's energy consumption.

Feedback was requested from 121 community buildings which had received an audit visit and subsequent recommendations report between November 2011 and March 2016. Due to the timing, Survey 2 feedback was not requested from the remaining 13 audited buildings as they had not yet been sent Survey 1. The carbon and financial impacts of the implemented recommendations were calculated along with some analysis of the comments which provide an insight into the social impacts of this programme.



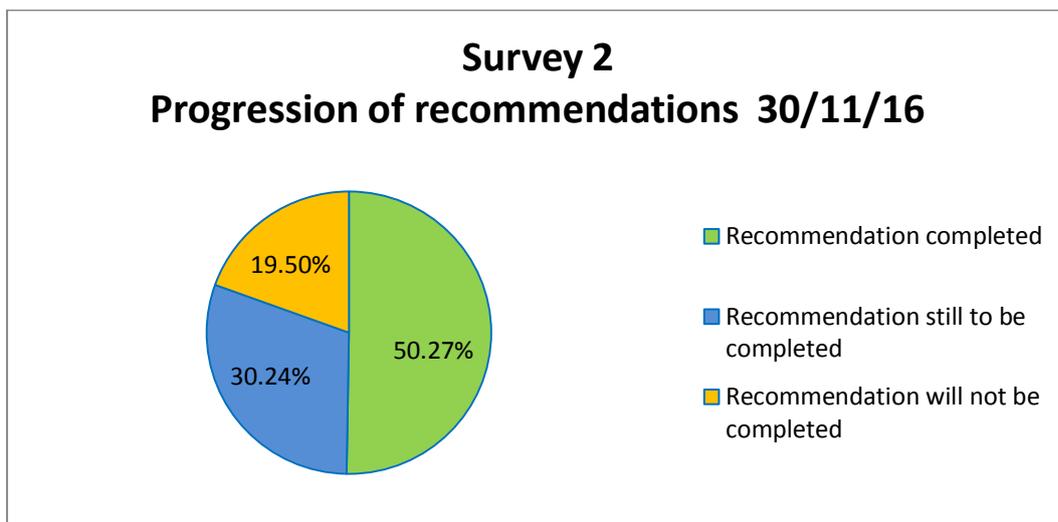
A further survey (Survey 3) was sent out electronically to 23 community building treasurers requesting current energy data for their building. These treasurers were selected as they provided detailed energy usage figures at the time of their audit therefore would offer a useful comparison.

4. Results

4.1 Survey 2 – Current Data

Feedback from Survey 2 was received between 13/10/16 and 29/11/16 from 70 community buildings. This represents a 58% response rate. Results have been analysed from 68 community buildings as one building is being completely re-built and one of the results is considered incorrect, probably due to a change in respondent.

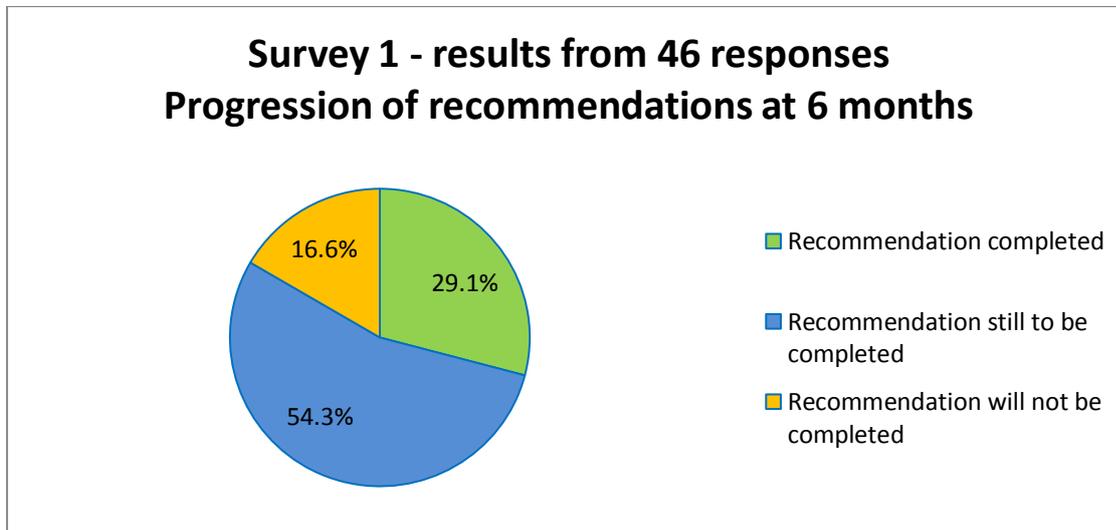
The graph and table shows the indicated progress of recommendations across all responses.



Average no. of recommendations per report	Average no. of recommendations completed		Average no. of recommendations still to be completed		Average no. of recommendations they do not intend to complete	
11.37	6.23	50.27%	3.32	30.24%	2.09	19.5%

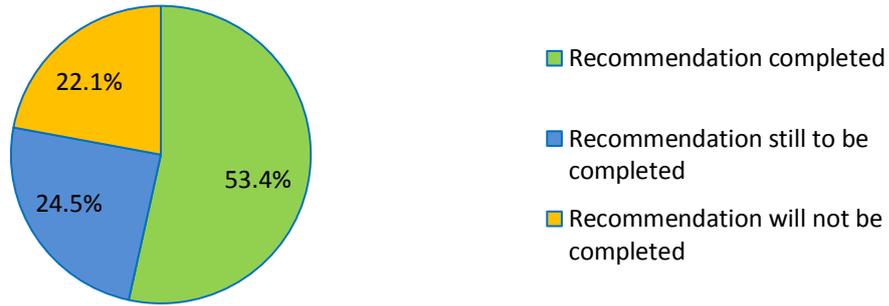
4.2 Comparison between Survey 2 and Survey 1

Survey 2 results were compared to previous feedback received in Survey 1. This comparison is based on 46 surveys responses from community buildings who responded to both surveys, representing 38% of all community buildings surveyed.



Survey 2 - results from 46 responses

Progression of recommendations at 30/11/16



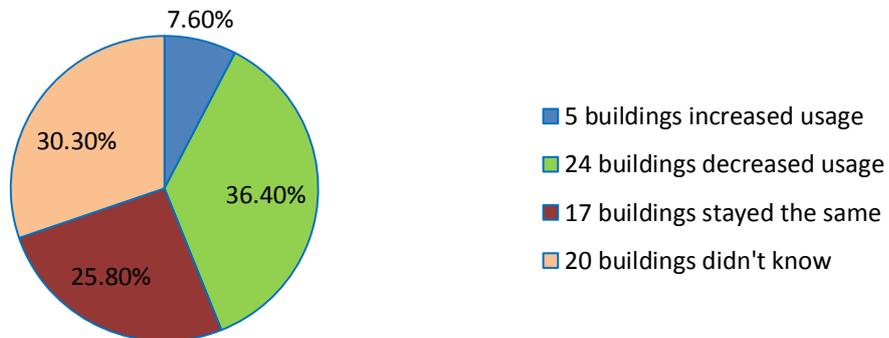
	Average no. of recommendations per report *	Average no. of recommendations completed		Average no. of recommendations still to be completed		Average no. of recommendations they do not intend to complete	
Survey 2	11.02	6.02	53.5%	2.27	24.5%	2.43	22.1%
Survey 1	10.76	3.13	29.1%	5.85	54.3%	1.78	16.6%
Difference		+ 2.89	+24.4%	-3.58	-29.8%	+0.65	+5.5%

*The discrepancy in the average number of recommendations per report is a result of not all questions receiving responses in each survey

4.3 Survey 2B - Impact on energy bills

The 2016 survey asked 'Which best describes energy use changes in your community building since the energy audit'. The following responses were received from 66 community buildings.

Change in energy use since the energy audit



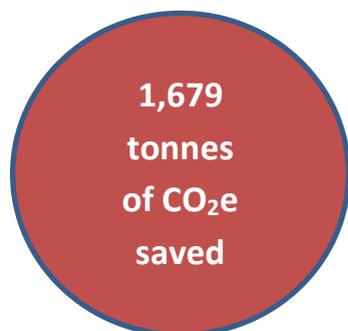
4.4 Survey 3 – Energy use

In order to identify the financial savings in more detail, surveys were sent out to 23 community building treasurers asking them to submit their recent annual spend on energy as a comparison with the annual energy spend calculated at the time of the audit visit. Only 2 responses were received for this survey (9%). Of these responses one was not able to provide full details and the other was not representative of their regular energy use as the hall had been undergoing major refurbishment. These results, therefore, are not used in this report.

5. Headline Outcomes

5.1 Headline Outcome - Carbon Impact

The carbon impact of the recommendations completed has been estimated based on Chartered Institution of Building Services Engineers (CIBSE) and Energy Saving Trust (EST) calculations with staggered carbon reduction accumulating over the 5 years of the project. The results have been calculated for the 68 community buildings analysed based on the recommendations they have completed with carbon reduction calculations based on DEFRA 2016 conversion figures for CO₂e. These results were applied to the savings for the 134 community buildings audited in the project.



Estimated carbon saving over the 5 years of the project = 1,679 tonnes of CO₂e (Carbon Dioxide and associated greenhouse gases)

5.2 Headline Outcome - Financial Impact

Using the same metric as above, the financial savings to the community buildings has been calculated.



Financial saving achieved over the 5 years of the project in energy reduction = £358,050

5.3 Headline Outcome - Social Impact

All those involved with this programme were aware that the impacts would not just relate to energy efficiency and cost savings, but also about making buildings more welcoming to their communities and thus better used. Comments that accompanied the Survey 1 responses are indicative of the social impact of the programme:

“The main hall is now warm, quiet and redecorated, so that it is a welcoming venue” - Ellen Hinde Hall

“The rebalancing of the heating system with new radiators has had an immediate effect on the warmth in the sanctuary. Our energy consumption has not changed but whereas before the sanctuary was cold, it is now at a comfortable temperature” - Collingwood URC

“It has been reported that the additional insulation in the small hall ceiling has improved the ambience in this particular part of the hall” - Hagbourne VH

“Energy costs have increased due to more use of Hall due to the improvements - now warmer and more welcoming!” - Weston-on-the-Green Village Hall

“Use has increased due to more booking and greater use of hall” - Wroxton Village Hall

“Since refurbishment the building hire has gone up and there is much greater use of the premises” - Woodstock Road Baptist Church

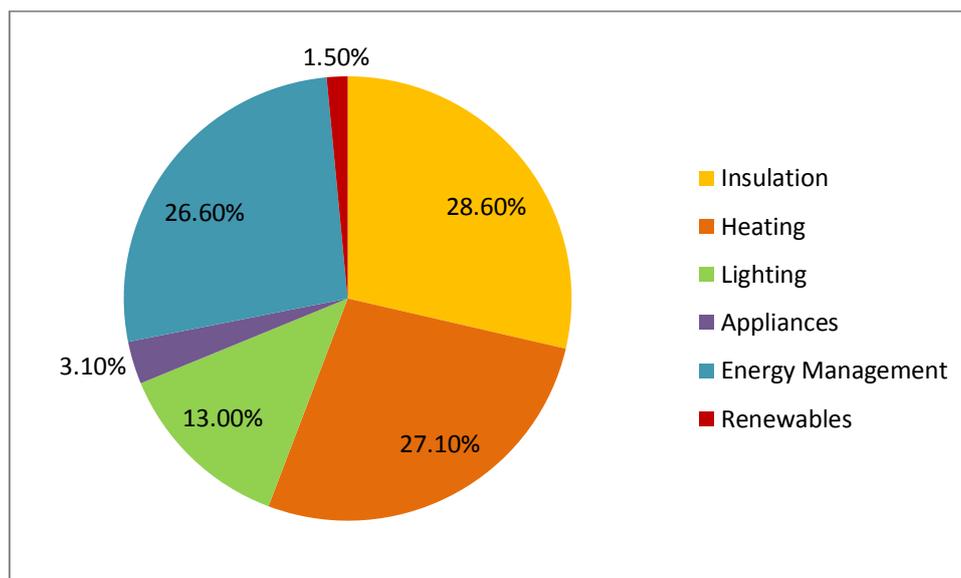
“The heating improvements we have installed are a great help and cheaper to run” - The Old School, Horley

“The major work to the roof and loft insulation has made a significant difference and your report helped to achieve support funding for the work. Gas usage has reduced by around 30% and electricity by 20%” - Steeple Aston Sports and Social Club

5.4 Headline Outcome – Recommendations by category

The following graph and table show analysis of the 391 recommendations that community buildings have completed up to 30/11/16, broken down by category.

Implemented recommendations by category



Insulation		Heating		Lighting		Appliances		Energy Management		Renewables	
112	28.6%	106	27.1%	51	13.0%	12	3.1%	104	26.6%	6	1.5%

6. Discussion

The time taken for community building committees to implement actions is very varied; some no-cost actions take place almost immediately after the audit while others require fund-raising and detailed planning. Many of the 'still to be completed' actions fall into this category. Additionally, decision by committee tends to be a lengthier process than would be expected in a home or business. Between completing Survey 1 and completing Survey 2 there is an increase in the number of recommendations that community building committees have implemented of almost 25%. By the time they completed Survey 2, committees had implemented over half of all recommendations made (53.5%). At the same time there is a reduction in the number of recommendations still to be completed, confirming that the barrier to implementation is likely to be time related.



There are a number of community buildings that are currently undergoing extensive refurbishment with virtually all recommendations pending.

Analysis also shows an increase of 5.5% in recommendations that will not be completed. This increase can be seen as a positive result, reflecting that committees have considered all recommendations



thoughtfully over time since the audit and rejected some as no longer suitable for a variety of reasons. In several cases this response reflects a recommendation for solar panels which has subsequently been rejected due to the reduction in the Feed In Tariff in the interim. In other cases committees have rejected recommendations based on the impact it would have on the aesthetics of their building (e.g. adding insulation to a feature wooden ceiling).

The five community buildings (7.6%) that reported an increase in energy use stated that the increase was as a result of much greater building use following refurbishment.

Seventeen (25.8%) of respondents reported that energy use had stayed the same; there are two possible reasons for energy use staying the same. For some it reflects the fact that energy use had stayed the same despite an increased use of the building therefore this is a lower energy use figure per user. For others it reflects an uncertainty over the amount of energy used. Many building committees still do not monitor their energy usage regularly or compare it to previous years.

Recommendations completed under the six recommendations topics range from no-cost actions that can be implemented almost immediately to higher cost items that require time, quotes and funds. The lower percentage of recommendations completed under lighting would reflect the fact that, while almost all audit reports will cover lighting, there are generally fewer lighting recommendations in a report than recommendations for insulation, heating and energy management.



The carbon saving from lighting recommendations is greater than for many other measures. E.g. changing to LED bulbs will give a greater CO₂e impact than lagging pipework, covering vents etc.

Comments received in Survey 1 and Survey 2 highlight community buildings that are warmer and more welcoming as a result of refurbishment work that was either instigated or supported by the energy audits. These buildings are attracting additional hires from a broader range of groups and for a greater period of time, thus re-vitalising a previously rarely-used building as a valuable community asset.

These social impacts on the life of the communities are difficult to measure and would need further research to quantify them. However comments made from a wide variety of committees throughout the programme bear witness to the positive social impact of Enrich.

7. Lessons Learned

There are a number of lessons learned from ENRICH to be considered when setting up a similar programme:

Motivation – Community building committee members are not necessarily motivated by carbon savings – but may be motivated by cost and comfort.

Partnership working - The role of Community First Oxfordshire’s Community Buildings Adviser was critical in reaching out effectively to communities, promoting the programme and advising on projects.

Data gathering – Experience has taught us throughout this programme, and highlighted by the unsuccessful Survey 3 (Energy Use), that community building committees are rarely able or willing to provide robust data on annual energy use. This reduces the opportunity for data comparison following the implementation of energy efficiency recommendations. Any potential programmes of a similar nature should consider making the provision of data on energy use before and after an audit, and after implementing recommendations, a condition of grant funding.

Social impact – Such programmes are not straightforward in terms of energy savings. The programme has delivered more sustainable buildings both in terms of energy use and in terms of offering welcoming facilities that lead to more cohesive communities.

Catalyst for action - Several community building committees have commented that the energy audit was the catalyst they needed to take the decision to upgrade their building to reflect the demands of today’s users.

Follow-up funding - The “carrot” of funding from TOE2 has significantly helped the programme; having a local funder to support and fund energy efficiency improvements in community buildings encouraged the uptake of actions that had a cost implication.

Grant support – Several external funders were happy to provide grant funding based on the recommendations of the audit report; it was seen by these funders as proof of need.

Volunteer power - There was not as much uptake of some of the ancillary activities e.g. Eco –Centres and Enriching Communities, as anticipated. These were volunteer-led programmes that required considerable time demands on the participants, possibly reducing uptake.

8. Conclusion and Next Steps

Enrich has greatly increased the awareness and understanding of energy use in community buildings in Oxfordshire. Significant carbon and cost savings have been made. The improved comfort of community buildings has, in many cases, led to more use of the community facility and resulted in increased community cohesion.

The energy audit has, in some cases catalysed a community into action. For example, following an energy audit, Shutford Village Hall decided that they needed to completely rebuild their village hall and secure a future resource for their community to use. The community has since secured over £100,000 from Shutfordians alone, and over 30 villagers are helping with the new hall project and many have committed time towards fundraising and village engagement.

There are a number of opportunities for continuing the value of the Enrich programme beyond 2016.

- The Association of Councils of Rural England (ACRE) is interested in developing models for taking Enrich to other counties. However, they recognize that the success of this programme has been the availability of TOE2 grants to support the implementation of energy audit recommendations; they are therefore looking in to the possibility of using Big Lottery funding.
- EiE have established links with rural community councils in several other counties who are interested in a similar programme to Enrich and are currently seeking external funding for an energy project.
- EiE will continue to offer energy audits to community buildings in Oxfordshire without supplementary funding from TOE2. Follow up funding for implementation will continue to be available from TOE2 with funds from Grundon Waste Management.



APPENDIX - Additional support for energy efficiency beyond the audit programme

Over the 5 years of the ENRICH programme, a range of initiatives were aimed at increasing the uptake of audit recommendations, increasing awareness of the benefits of energy efficiency for community buildings and increasing awareness of energy and carbon saving in communities:



Energy efficiency improvements in community buildings

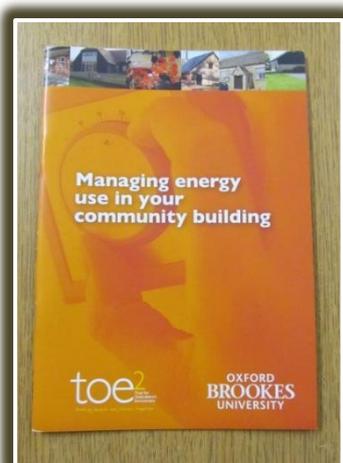
- 29 attendees came to six **Energy Efficiency workshops** – including 17 attendees whose community buildings have not been audited.

- Four community buildings committees supported through the **Mentoring Programme**, linking experienced chairs of community building committees with committees needing support and advice to implement their audit recommendations. This helped the benefitting committee and the mentor to develop an increased appreciation of energy efficiency).



- A wide range of Oxfordshire organisations that support community development were engaged with the aims of the programme through personal contact or entries in their newsletters. These include The Oxfordshire Playing Fields Association (OPFA), Oxfordshire Association of Local Councils (OALC), CAG

Network, District Councils, Oxfordshire branch of the Society of Local Council Clerks, Oxfordshire Council for Voluntary Action (OCVA) and Oxfordshire Stronger Communities Alliance (OSCA).



- EiE and TOE2 have **run stalls and given talks** throughout the County to promote the benefits of energy efficiency in community buildings.

- The **Enrich Showcase**, held at Kirtlington Village Hall in March 2014, saw about 60 people from across Oxfordshire come together to celebrate and learn from the success of the programme.

- A 34-page guide to '**Managing Energy Use in your Community Building**' was written and extensively circulated in Oxfordshire and beyond.

- Whilst the majority of energy audits have taken place in village halls, a broad range of community buildings have been visited including urban community centres, a cricket pavilion, two Women's Institute halls, several churches and church halls, a Scout hut, a community drama studio and The Old Fire Station in Oxford.

Encouraging Community Engagement

- **Two Eco-centres** were supported to the point of certification – Kirtlington and Deans Court, with 4 other committees supported in their Eco-centre journey – Sandford on-Thames, Eynsham, Cholsey and Blewbury.
- **The Enriching Communities** initiative supported community engagement work in Woodcote and Eynsham and a series of 4 monthly articles were written for South Stoke village newsletter that has been circulated to other villages for use in their newsletters as appropriate.
- **Two trial Community Shop audits** were completed. These audits revealed that the energy challenges for shops are much more universal than those for community buildings therefore a tip sheet on 'Managing Energy Use in Shops' was written and distributed to all community shops in Oxfordshire and shared with external organisations.
- **Posters** were designed and distributed to 20 halls, celebrating energy efficiency initiatives and inspiring people to take similar initiatives at home.

