Efficiencies for Growth – Final Report

This activity received funding from the Australian Government as part of the Community Energy Efficiency Program.
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Double Glazed Windows in Kitchen Area

“The views expressed herein are not necessarily the views of the Commonwealth of Australia, and the Commonwealth does not accept responsibility for any information or advice contained herein.”
Executive Summary

Cobram Community House has been a feature of the Cobram and district community for over 30 years. Located in the centre of town, the House has grown from being literally an old house, to a network of buildings providing a wide range of community services, learning and training provision and social activities.

Over the years while new buildings were added and parts of existing buildings redeveloped, the old House (or as it is now known the O’Kane Wing) fell into disrepair with large gaps between the floor and walls developing as the stumps rotted. External walls were unstable with holes and patches of rot in the weatherboards.

Given the age of the building, there was no insulation in either the walls or the ceiling, large window exposures and no venting of the ceiling space. Major air gaps caused inefficiencies in heating and cooling resulting in inflated heating and cooling costs.
One of the most major impacts of these issues was the growing tendency for the rooms in the building to be underutilised. This was due to the discomfort suffered by the users (predominantly older age), and our inability to effectively heat or cool the rooms.

Essentially the project was a small, discrete one which primarily covered the following structural works:

- Replacement of existing windows with double glazing
- Installation of underfloor, wall and ceiling insulation
- Re-stumping of floor and replacement of floor coverings
- Re-plastering of damaged walls
- Installation of new zincalum roof and two rotary ventilation units
- Repainting disturbed areas.

While the project itself was small, we encountered some issues in relation to implementation and partnerships. These were resolved and the building works finally commenced in February 2015, much later than originally planned.

Despite this, the works were completed by the end of May and the building is now operational, hosting a “Watts Working Better” energy efficiency workshop as its premier event.
Potential energy efficiencies had been mapped prior to the commencement of the project and it is estimated that “Implementing the suggested energy saving measures could potentially result in cost savings of more than 20% per annum across the site and 20-30% ...in the eastern section of the building...” ¹

This project has enabled the rejuvenation of a well-established community resource. There will be ongoing benefits to the organisation through increased use of the facility while users and the community will benefit through the improved conditions; all while saving energy and demonstrating the benefits of the installation of energy saving features.

¹ Cobram Community House Energy Audit (Attachment A)
Project Objectives

The overarching objective of this project was to improve the structure and as a result, energy efficiency of the O’Kane Wing of the Cobram Community House.

Structural works were the framework around which the project hung. Without addressing the existing structural problems, such as rotting stumps and deteriorating weatherboards there would be little value in installing energy saving measures such as double glazed windows.

Our project therefore, focused on getting the ‘bones’ right then adding the extra measures which would increase the efficiencies we put in place structurally – all working towards decreased energy consumption and a smaller electricity bill at the end of the day.

As a small, not-for-profit community run organisation, it is imperative that expenditure is thought through and shows value for money. Our electricity bills were becoming noticeably more expensive and our room usage in the O’Kane Wing was declining – older people particularly not wanting to use rooms which were uncomfortably cold in winter or hot in summer. As such we were facing a double edged sword; increased costs and decreased usage and therefore, income.

We worked to inform the broader community of what we were doing, sharing our knowledge and learning with Moira ACE members (the Moira Shire wide adult learning network), staff, students, clients and local community members. We aimed to provide a showcase of what we had achieved and how it would benefit both the organisation and community members while also improving a community asset.

Retrofitting the building was seen as a feasible, workable and affordable way of reinvigorating a community resource which was rapidly sliding towards being uninhabitable. Fortunately the funding came in time to halt this slide and before works were considered to be uneconomical. This also helped to demonstrate to the community that small, affordable steps can be taken to reduce greenhouse emissions and energy costs.

Through this project we aimed to demonstrate what can be done to improve the energy efficiency of an existing, deteriorating building as well as improve a community facility while also benefitting from cost savings.
Project Energy Efficiency Activities

Our intention was to improve the energy efficiencies of the O’Kane Wing, part of the Cobram Community House premises in Punt Road, Cobram.

As such we installed the following infrastructure and technologies:

- Double glazed windows
- Insulation – roof, underfloor, wall.
- Rotary ventilation units (2)
- New flooring
- New exterior walls (East and Northern aspects)
- New zincalume roof

These items were as specified in the Energy Audit we had prepared prior to works commencing. Working through our energy assessment it was apparent that the energy efficiency of the O’Kane Wing was predominantly affected by the high solar exposure, the ineffective insulation in the roof and none in the walls or floor as well as the cracks and holes in the walls and floors.

We aimed to address the existing sub-structural problems and then taking advantage of these works, installing efficiencies (such as the insulation) as we went. This enabled the process to not just ‘plaster over’ the problem of energy losses, but to address the underlying problem and apply enhancements on the way.

One of the concerns around this approach was the lack of visibility of some of the works (such as insulation) and the potential community perception of not having received value for money. We addressed this through the communication program and the powerpoint presentation. Overall, we felt that the items we chose to undertake gave a balance of the ‘visible’ and ‘non-visible’ while also being highly complementary in nature and targeted as major impact items in the Energy Audit.
Old floorboards gone!  

We also felt that the communication plan we had in place could be used to identify the works which were completed, thus bringing to the attention of the community both the works which were highly visible and those which were inherently less visible.

New floors in, insulation on the way!

Interior cracking
Project Demonstration and Communications Activities

CCH chose to work on a number of levels in relation to communicating the works and outcomes of the CEEP project.

Predominantly we wanted to make the community aware of the works we had undertaken and why we had chosen to do what we did. With some of the works not being highly visible, we had to somehow expose and explain the value of these works and what our expectations of the outcomes would be.

We chose to work on a number of levels, with the following being our main methods and vehicles:

- Engaging our students to ‘tell the story’ of the project
- Use the television in reception to display a powerpoint\(^2\) presentation outlining what we did, the benefits and what we learnt
- Traditional media
- Electronic media and website\(^3\)
- Promotion through local ‘Moira ACE’ cluster of neighbourhood houses
- Work with the Moira Shire to promote the project and our activities.

CCH successfully put into place all but one of these strategies. Due to the delays we encountered over the life of the project, it became unworkable to tie the use of students to tell our story into the promotional and community learning process. With timelines extending and completion of the project starting to look somewhat tenuous we had to make a call about our capacity to effectively include this subject matter into the curriculum and also the impact on the students. We decided not to continue down this path as it was felt that the extremely tight timelines would be too taxing and would have a negative impact on both the students and training staff.

Electronically, we have a power point presentation which runs in the reception area of our building. As we often have people waiting to access services or meet with staff and agencies it is a captive audience to which to tell our story. We have also included information regarding the project on our website, providing information about our project and its progress to those accessing the site.

With the project only recently having all obstacles for completion removed, there has been little media exposure. This is being addressed through a press release being provided to the local paper for publication. Our aim is to also have the local television station cover the project, acknowledging the input of the Federal Government, Moira Shire and the local philanthropic group, Cobram Community Enterprise.

\(^2\) Attachment B
\(^3\) www.cch.vic.edu.au
Locally, we promoted our activities through our local network of neighbourhood houses. We discussed what we were planning to do and how we planned to do it and the outcomes we were expecting.

We collaborated with the Moira Shire offering to host a Shire initiative which was aimed at building the knowledge base of the local community around energy efficiency and how individuals could implement and benefit from such knowledge. The ‘Watts Working Better’ information session was held at Cobram Community House and while numbers were lower than anticipated, those participating in the session all provided very positive feedback about the session and the applicability of what they had learnt. As part of this session, we conducted and walk through of the O’Kane Wing and discussion around what we had implemented, why we had implemented what we had and what we anticipated the benefits to be.

In our endeavours to obtain funding to cover a shortfall following partner withdrawal, we took our message out to community groups, speaking to organisations such as Cobram Community Enterprise to highlight our work and our aims. This strategy had a positive outcome, with the organisations both becoming aware of what we were trying to achieve as well as funding our project.

Overall, the delays we experienced and the tight timelines once we were finally able to commence the project meant that we had limited opportunities to conduct further publicity and promotion of the project. The very recent completion of the project has meant that publicity has been limited to date but we look forward to continuing to promote the project over the coming months.
Outcomes and Benefits of the Project

This project has achieved its objectives with the implementation of the specified range of energy efficiency measures within the required timelines.

The measures implemented will work to achieve the energy savings as specified in the initial energy assessment. In conjunction, we have also seen an increase in awareness around energy efficiency and the implementation of low cost and incidental energy efficiency measures within the organisation. Old evaporative air conditioning openings have been blocked off, non-necessary lighting is now turned off as are computers and other equipment at the end of the day and air-conditioning thermostats are set at between 24 and 27 degrees centigrade in summer and between 18 and 20 degrees centigrade in the cooler months. At this stage however, due to the recent completion of the project, no data has been collected to evaluate savings.

U3A Cards Afternoon – not so breezy!

The project has had the ancillary benefit of greatly improving the rooms of this part of the facility. Previously groups of older age users were becoming disinclined to use these rooms because of the inability to heat or cool the rooms appropriately. The facility was suffering and falling into greater disrepair with increasing lack of use. This was putting pressure on our other facilities and the Community House as a whole.

The improvement in the rooms has encouraged one seniors group to offer to fund new window furnishings to complement the energy saving measures of the double glazing… an offer which has been keenly accepted!
While this project was not comparatively large, it has had a huge impact. It has revitalised a community facility which was in very real danger of becoming unusable. It has also revitalised it to the point where it is now a showcase for energy efficiency and what can be done on a relatively small budget, showcasing both expensive and non-expensive technologies.
Budget

The budget for this project was comparatively, not a large one however that did not mean the project was not without its challenges.

Initially the project was budgeted at $70,551.00 (ex GST). This comprised of $47,034.00 as CEEP funding, $15,000.00 from partner organisations and the balance of $8,517.00 funded by our organisation.

Partnership issues caused major delays in our works, predominantly due to the withdrawal of support services and inferred financial support. As we worked to secure further funding to replace that which we had anticipated, we lost time in putting the project into play. As this stretched out over a number of months, costs associated with the project rose and our organisation had to assess its capacity to cover the shortfall. As time moved on we were able to access funds from a local community group, Cobram Community Enterprise, to assist fill the financial gap.

Meantime the Shire had revisited its involvement in the project and we began to work more closely together. Part of this re-connection saw the Shire request the completion of a professional scope of works, detailing what works would be completed and how, expected standards and specified materials. This was provided to contractors who tended for the job, ensuring a consistent standard upon which quotes were based. It also ensured potentially unidentified items were specified and that there were no unpleasant financial surprises at the end of the project. Being outside of the original project specification, the Shire was prepared to fund this work. In hindsight, this was a very valuable tool which ensured the project was completed to the specified requirements and prevented potential shortcuts of which we as laymen, would have been ignorant. It also helped ensure works were completed to budget.

With increases in the works costs and the inclusion of the scope of works the project budget increased to $78,211.82 (ex GST). In relation to income, the $47,034.00 in CEEP funding remained, we received $10,000.00 in new partner funding, $5,681.82 from the Moira Shire for the scope of works, and CCH contributed $15,496.00. The change to expected funding resulted in an increase in the CCH contribution of $6,979.00. Given the amount of work involved in renegotiating funding, works, project plans and relationships through this period, as well as re-working project plans CCH would have spent well in excess of it’s initially budgeted funds. The time required to manage and implement this project, despite its relatively small size has been substantial. In hindsight and for future projects, a greater time allocation will be included.

As the project encountered substantial delays, the works have only recently been completed. This has meant that there is a 5% withheld amount which will appear in the final report. This amount will be paid after a six month period and will be held as surety against potential problems with any of the works.
Project Operation, Mechanism and Processes

The project was managed by the Cobram Community House with assistance from external organisations.

Early in the process a Steering Committee was established with the following membership:

**Troy Costigan**  
*Cobram Community House Executive Officer*

**Beverley Anderson**  
*Committee of Management, Cobram Community House*

**Sally Bate**  
*Cobram Community House Business Development Co-ordinator*

**Rowan Howarth**  
*Moira Shire Council, Executive Manager, Assets and Construction*

**Lee Fraser**  
*Moira Shire Council Grants Officer*

**Thomas Brown**  
*Moira Shire Council Environmental Sustainability Officer*

Initially it was anticipated that the Steering Committee would meet on a monthly basis, coming together in between as required. Over time, a number of the Shire representatives left their employment with the Shire. This resulted in a change of representation; it also coincided with the Shire taking a less active role in the project. Through this period CCH worked on obtaining further funding to support the project and bring it to fruition. Meetings continued but with a decreased representation from the Shire.

In the latter stages of the project the Shire provided the services of Daryl Kelly, Project Manager Assets & Construction to assist and guide us in our negotiations with the building contractor and in the management of the construction process. This provided us with the necessary skills to ensure the specified outcomes were achieved and contract provisions were met.

The Shire also funded the engagement of a building designer to ensure the establishment of a full scope of works and specifications to ensure works were completed to the stipulated standards and expectations.

*Rotary Ventilators at Work*
On putting the job out to tender, the scope of works was used as the primary documentation. It was provided to all organisations which indicated interest in tendering for the job. The tender was offered locally with a Cobram Builder being the successful tenderer.

We were fortunate that there were no hidden surprises when the builders commenced their works. We had been told to prepare for the possibility of extra, unspecified works due to the age of the building and its general condition; luckily however this was not to be the case. We were able to proceed with the works as planned and once commenced, the scheduled works were completed to the timeline provided by the builder....much to everyone’s relief!

Overall the project once commenced, worked well. It was a simple project with clear and non-complex outcomes. The assistance of the Shire was invaluable in both the initial planning stages and the identification of the need for a scope or works. Prior to the Shire’s involvement, a scope of works had not been deemed necessary, however it proved to be a valuable tool which gave us a solid reference point when minor issues with the builder arose. The support of the Shire’s Project Manager gave us confidence in determining how we addressed issues and on occasion, standing our ground!

It was sometimes difficult (and costly) for a small organisation such as Cobram Community House to meet the requirements of the Department from time to time, particularly in relation to reporting and accommodating the changes which occurred throughout the project. In hindsight, we would allow more in the way of time and money to accommodate this.

To celebrate our work and achievements we look forward to a celebratory morning tea within the coming weeks, bringing together all those who made this project a reality.

New flooring in kitchen area.
Conclusion

While this has not been an easy project to administer and put into place, it has been a project with greatly beneficial outcomes both for the Cobram Community House and the broader community of Cobram.

We have taken on the challenge of upgrading a rapidly deteriorating community facility, under threat of dilapidation, and have not only upgraded it but made it a model for energy efficient practices for the community. The works we have had completed have made the building not only look better but feel better; providing a more enticing space for users.

While it has been a drawn out process, the works have finally been completed and user groups are starting to re-engage with the facility. On the 28th May 2015, a Certificate of Final Inspection was issued by the Moira Shire, indicating the completion of the works. In the week post completion of the works we have hosted a community energy seminar, a men’s health seminar, two craft afternoons, a card afternoon and two community meetings. This is in addition to one of the rooms being used by a visiting service provider. In all instances the feedback has been extremely positive and we have taken the opportunity to tell our story about what we have achieved and the improvements we expect to see in our energy consumption levels.

The project has challenged us on a number of levels, not least in developing, maintaining and creating partnerships. It has challenged us to financially invest in these upgrades and believe in the positive potential outcomes.

From here on the energy efficiencies put in place under this funding scheme will provide CCH with a continuing cost saving with little or no ongoing financial input. The nature of the works sees a completed and discrete project with long term residual benefits … and some very happy community members!
**Project Energy Efficiency Improvement CEEP Report Form**

<table>
<thead>
<tr>
<th>PROJECT TITLE</th>
<th>Cobram Community House Renovations</th>
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<tr>
<td>PROJECT ID</td>
<td>CEEP2139</td>
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<tr>
<td>FUNDING RECIPIENT</td>
<td>Cobram Community House</td>
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<tr>
<td></td>
<td>43-45 Punt Road, Cobram 3644</td>
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<td>DATE</td>
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**Building, Facility or Site 1**

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<th>Cobram Community House</th>
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<tr>
<td>Location (address)</td>
<td>43-45 Punt Road, Cobram 3644</td>
</tr>
<tr>
<td>Type of building, facility or site</td>
<td>Community education and support facility</td>
</tr>
<tr>
<td>Activity Type and Measure</td>
<td>Building fabric upgrade of Eastern wing</td>
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<tr>
<td>Energy Efficiency Estimate Method</td>
<td>The simulation used to provide the estimates is based on the 2012 Building Code of Australia from JY3 and RetScreen modelling (Refer Appendix 2 of Energy Audit Report)</td>
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<td>Baseline Energy Usage</td>
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<td></td>
<td>11,100 kWh per year (2013) (~39,960 MJ p.a.) East wing</td>
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<tr>
<td>Baseline Energy Efficiency</td>
<td>37,000 kWh x 3.6/650 = 205 MJ per m² per annum - Whole building</td>
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<td>11,2,000 kWh x 3.6/145 = 278 MJ per m² per annum - East wing</td>
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<tr>
<td>Energy Efficiency Improvement</td>
<td>Reduction 3,360 kWh x 3.6/145 = 83 MJ per m² per annum</td>
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**Reporting Data (Measuring Energy Efficiency and Additional Data)**

- A total area of 650 m² and 11 staff occupants, variable numbers of students
- 39% of year 3,389 hours p.a. 85 per cent average operational daily occupancy level
- Daily hours of operation: 9.00 am - 9.00 pm
- Building construction date 1920

**Cost of Activity**

- $18,044 (energy efficiency materials) of total $70,000 renovation

**Estimated Cost Savings**

- $1,100 per annum
DECLARATION

The Authorised Officer of the organisation makes the following declarations:

x I declare that I am authorised to submit this Final Report (including any attachments) on behalf of Cobram Community House.

x I declare that the information provided in this Final Report is true and accurate.

x I understand, and acknowledge that giving false or misleading information in this Final Report is an offence under the Criminal Code Act 1995.

x I understand that final payment will only be made in accordance with the Funding Agreement including on satisfactory completion of Milestones.

Authorised Officer Signature: [Signature] Date: 10/06/2015

Name: Paula Walin-Bates

Position: Treasurer

Organisation: Cobram Community House

Witness Signature: [Signature] Date: 10/06/2015

Name: Jean Campbell

Position: Community Services Co-ordinator

Organisation: Cobram Community House

The use and disclosure of information provided in this Final Report is regulated by the relevant provisions and penalties of the Public Service Act 1999, the Privacy Act 1988, the Freedom of Information Act 1982, the Crimes Act 1914 and the general laws of the Commonwealth of Australia.

Information contained in the Final Report may be disclosed by the Department for purposes such as promoting the program and reporting on its operation and policy development. This information may also be used in answering questions in Parliament and its committees. In addition, the selected project information will be made publicly available. Public announcements may include the name of the grant recipient and of any project partners; title and description of the project and its outcomes; and amount of funding awarded.