Low Income Energy Efficiency Program

New England / North West Energy Efficiency Campaign

Australian Government
Department of Industry, Innovation and Science

BEST EMPLOYMENT

Inverell Shire Council

GLEN INNES SEVERN COUNCIL

GWYDIR SHIRE COUNCIL

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Acknowledgements

This activity received funding from the Australian Government.

Disclaimer

1. Definitions and Acronyms

Community Workshops- Free Energy Efficiency Workshops delivered to members of the community.

EAPA- Energy Accounts Payment Assistance helps people experiencing a short term financial crisis or emergency to pay their electricity or gas bill.

Energy Reduction Plan- A tailored plan provided to Household Participants detailing what steps they can undertake in their household to reduce electricity consumption.

Home Energy Assessment- A free assessment conducted in the Participant Housheholds home which identified their current energy consumption habits..

Home Energy Assessor- BEST Employments staff member trained to deliver the Home Energy Assessments.

LIEEP- Low Income Energy Efficiency Program

New England North West Energy Efficiency Campaign- One of 20 trials engaged through the Low Income Energy Efficiency Programme. The New England North West Energy Efficiency Campaign was marketed as Powersave.

Participant Household- eligible households who participate in the Powersave project.

Powersave – New England North West Energy Efficiency Campaign

The Department- Refers to Department of Industry, Innovation and Science

2. Executive Summary

The New England North West Energy Efficiency Campaign (Powersave) was funded under round two of the Australian Government's Low Income Energy Efficiency Program (LIEEP). BEST Employment as lead established a consortia with Inverell, Glen Innes Severn and Gwydir Shire Councils. The project incorporated towns from Northern New South Wales including Inverell, Bundarra, Tingha, Warialda, Bingara and Glen Innes.

The objectives of the LIEEP program were:

1. trial and evaluate a number of different approaches in various locations that assist low income households to be more energy efficient
2. capture and analyse data and information to inform future energy efficiency policy and program approaches.

In addition to the objectives above, the LIEEP program was designed to have the following benefits:

1. assist low income households to implement sustainable energy efficiency practices to help improve the health, social welfare and livelihood of low income households
2. build the knowledge and capacity of consortium members to encourage long-term energy efficiency among their customers or clients
3. build the capacity of Australian energy efficiency technology and equipment companies by maximising the opportunities for Australian industries to participate in the projects.

The project focused on the provision of information and education in an easily understandable and accessible format to assist low income households, particularly those participants with low levels of literacy or disabilities that make information interpretation difficult, to become more energy efficient.

To achieve the objectives of LIEEP, Powersave was planned to achieve the following:

1. recruit low income households specifically indigenous, those on an aged and disability pensions, unemployment or study benefits or those who have been identified as struggling to pay council rates, to participate in the project
2. educate these households on how they could change their current energy consumption habits to those that would result in more efficient use of energy through workshops and one on one discussions
3. provide relevant information to these households on the various Government rebates and schemes that they might be entitled too
4. promote energy efficiency through project website, news letters, kiosks that installed in local libraries, Facebook and Twitter
5. conduct energy assessment and develop tailored energy reduction plan that based on the assessment outcomes for each individual participant households
6. monitor and support individual households on their progress during their participation in the project
7. record and analyse quantities and qualitative data on these households' energy consumption, energy use habits and attitudes towards energy efficiency.

It was anticipated that Powersave would also build the knowledge and capacity of consortium members to encourage long term energy efficiency among their customers or clients and build the capacity of Australian energy efficiency technology and equipment companies by maximising the opportunities for Australian industries to participate in the projects.
Powersave was developed with six distinct phases; Engagement and workshops, Home Energy Assessment; Energy Reduction Plan; Monitoring, Reward, Review and Evaluation. During these phases quantitative and qualitative data was recorded to gather information on pre and post Home

Energy Assessment energy consumption, Participant Households perception of energy efficiency and energy use behaviour.

1. Engagement and workshops

A number of different engagement strategies were adopted to recruit a target of 300 Participant Households. Initially, a Powersave website was developed to provide easy to understand information that specifically targeted members of the community with low levels of literacy and reading difficulties. The website provided information on the Powersave project and energy efficiency tips that could be implemented within a household. Four information kiosks were installed at each local Shire library allowing members of the public that did not have the internet at home to access the website. Each kiosk had the Powersave website permanently displayed and library staff were trained on how to use the website and provide assistance to members of the public.

Approaches were made to local community organisations such as charity organisations and Aged Care facilities to discuss the benefits of the Powersave project and the benefits to their clients. Targeted community workshops could then be conducted with their clients in familiar environments.

Newsletters were distributed monthly to various community organisations that included Participant Household case studies, energy efficiency tips and details of upcoming community workshops. Social media such as Facebook and Twitter were also used to promote the Powersave project

2. Home Energy Assessment

Participant Households in the project had a free Home Energy Assessment completed by a trained Home Energy Advisor. The Participant Household completed a pre assessment survey with the Home Energy Advisor to record their attitude to energy efficiency.

The Home Energy Assessor also recorded data on energy consumption habits and the previous twelve months of electricity consumption to serve as a baseline. Data from the Home Energy Assessment was submitted to Steplight Pty Ltd for the development of an Energy Reduction Plan.

3. Energy Reduction Plan

Energy Reduction Plans were delivered by the Home Energy Assessor to each Participant Household which provided an opportunity to reinforce energy saving techniques and discuss the findings of the Energy Reduction Plan. An energy reduction target of 10% was established for all Participant Households to achieve during their next twelve months of engagement with the project.

4. Monitoring

Monitoring of the Participant Households energy consumption continued for a period of 12 months after the initial Home Energy Assessment was completed. Energy consumption data continued to be recorded and contact maintained with the Household Participant to ensure they progressed towards their Energy Reduction target. During this period, the Participant Household could continue to ask for advice and support from the Home Energy Advisor.

5. Reward

All Participant Households were rewarded with energy saving devices (door snakes, gap sealers, thermometers, remote controlled or Jackson foot switch power board) for their participation. Those Participant Households that achieved their energy reduction target were further rewarded with a combination of energy saving devices such as energy efficient security lights, energy efficient panel heaters or kettles.

A post assessment survey was also conducted to capture data on the Participant Households

attitude to energy efficiency and any changed energy consumption habits.

6. Review and evaluation

The Powersave project achieved four of its five identified deliverables as outlined below;

Deliverable	Target	Outcome
1	900 low income households approached	610 Attendees at community workshops
2	300 Participant Households assessed	300 Participant Households assessed
3	80% of household participants meet their energy reduction targets	More than 89% of participant households have reduced their energy consumption by 10% or more over four billing periods.
4	80% of household participants report a greater understanding of energy efficiency	98% of Participant Households are reporting a greater understanding of energy efficiency after a Home Energy Assessment had been completed
5	80% of Participant household energy consumption habits change.	96% of Participant Households indicated that they had changed energy consumption habits as a result of the Home Energy Assessment.

The Powersave project also achieved a number of outstanding outcomes including:

1. 47% of Participant Households were made aware that they were eligible for a rebate
2. 95% of Participant Households negotiating a cheaper electricity rate with their existing or another energy retailer.

Qualitative results obtained through the pre and post Home Energy Assessment surveys also indicate increases in perception in a number of key areas as outlined below.

Question	Response Pre Assessment	Response Post Assessment
How interested are you in conserving energy in the home?	95% (very interested or interested)	99% (very interested or interested)
How comfortable do you feel (heating/cooling etc)?	78% (very interested or interested)	98% (very interested or interested)
How empowered do you feel in relation to your energy consumption	65% (very empowered or empowered)	99% (very empowered or empowered)
How in control do you feel of your finances?	54% (in control or Sometimes in control)	98% (in control or Sometimes in control)
How much has your behaviour changed over the last two years?	80% (very energy efficient or sometimes energy efficient)	98% (very energy efficient or sometimes energy efficient)

Powersave was also able to build the knowledge and capacity of consortium members to encourage long term energy efficiency. This was achieved by training library staff in how to access the Powersave website using the information kiosks and assist members of the public to view the website content. Training was also delivered to staff from BEST Employment and the Inverell Shire council on how to conduct Home Energy Assessments.

Powersave also assisted to build the capacity of Australian energy efficiency technology and equipment companies by purchasing products from an Australian Businesses. These purchases

included;

- Energy efficiency training and Home Assessment kits from Steplight Pty Ltd;
- Individualised Energy Reduction Plans for each Participant Household;
- Energy efficient devices such as thermometers, kettles, heaters, remote controlled power boards, foot switch power boards, energy efficient security lighting and kettles.

Significant savings have also been recorded by most Participant Households. Achieving a reduction of 10% in electricity consumption has meant that the average Participant Household in Powersave had reduced their daily energy consumption by 4.54kWh, an approximate saving of $414.27 per year (based on 25c per kWh).

Due to time and funding constraints, not all benefits of participating in the Powersave project have been measured or had a monetary value calculated. Those that were measured were for a 12 month period only and do not reflect the benefits that Participant Households would gain over an extended period of time. Therefore the Cost-Benefit Measure and Cost Effectiveness Measure have been calculated over a 5 year period.
Additional benefits to Participant Households include;

- Increased comfort levels
- Increased savings
- Increased confidence
- Better control of finances
- Lower incidents of illness

Although the Powersave project did not directly measure the monetary value of these benefits, they should not be discounted when considering the cost benefit ratio.

Energy Cost reduction
Energy Cost reduction (@25c per kWh)
$2130.80 over 5 years

Energy Consumption reduction
Energy Consumption reduction
8522.75 kWh over 5 years

Level	Cost	cost benefit ratio	Explanation
1	Direct Cost	0.18	Every 18c invested yields $1 benefit
2	Direct Cost plus participant Household recruitment and retention costs	0.53	Every 53c invested yields $1 benefit
3	Total Business	0.64	Every 64c invested yields $1 benefit
4	Total Trial	0.75	Every 75c invested yields $1 benefit

Powersave has identified a number of key outcomes that should be considered in any future energy efficiency programs.

1. Engagement of households is difficult if there are no existing relationships with that household. A much better engagement strategy is to use community organisations that have already developed strong relationships with their clients/service users.

2. When engaging community organisations, find out who you need to talk to first and ensure that benefits to the organisation and their clients/service users are clear. It may take two to three visits to get this message across if you do not have an established relationship with the community organisation.

3. When conducting Community Workshops, keep written text to a minimum and don't overwhelm people with information. Money talks, keep relating how changing habits/conducting retrofits will save money. Give real world examples that everyone can relate to. Community Workshops should be conducted in an environment that is familiar with the target audience. For example if targeting Indigenous people, conduct the workshop at an Indigenous community organisations location.

4. There is genuine need in the community for ongoing information, advocacy and support to be provided, particularly to the elderly. Our most disadvantaged members of society (indigenous, culturally diverse, elderly and low income) need ongoing support from a trusted organisation. BEST's Home Energy Advisor is still receiving requests for assistance in interpreting energy bills or energy efficiency advice from members of the public and community organisations such as the Salvation Army. Powersave has demonstrated that by engaging passionate staff that can create genuine trusted relationships with not only community organisations but also households, genuine benefits can be delivered.

5. Low income households change address frequently. During the Powersave project, 17.33% of Participant Households changed address. All of these low income households were in rentals which demonstrates the housing instability that many low income households face.

6. Energy Efficiency is not always a priority for low income households as there are often conflicting issues such as health, housing, social or economic issues that are impacting their daily lives.

7. Ninety five percent of Participant Households negotiated a better electricity rate with their existing retailer or new retailer. This would indicate that low income households lack the knowledge or confidence to search for or negotiate cheaper rates.

In conclusion, the Powersave project has demonstrated that it was successful in meeting the project objectives and in turn the objectives of the LIEEP program. Low income households were successfully engaged in the project and the majority achieved a reduction of 10% or more in their electricity consumption while increasing their in home comfort. Participant Households also acknowledged that additional savings had been achieved through accessing Government rebates or renegotiating their electricity rates with their energy retailer.

It is recommended that a similar approach to the Powersave project be adapted for national delivery. Community organisations would be recruited to deliver energy efficiency information through workshops and home assessments. Information provided would include how to read your energy bill, how to search for and negotiate cheaper rates with electricity retailers, rebates that are available and energy saving tips for in the home. The national scheme would need to continue to provide support to people after the workshop and home assessments to ensure that participants remain engaged and energy savings are realised. Community Organisations delivering the project would need to demonstrate their;

- existing linkages with community organisations across the whole of the service area,
- proven capacity to deliver services to targeted cohorts (Aged, Indigenous, Cultural and Linguistically Diverse and unemployed), and

- demonstrated ability to meet contracted KPI's and targets.

If the national scheme was to be funded, then key performance indicators would need to be identified and met to ensure the scheme represents value for money.

3. Introduction

Background

In November 2012, the Australian Government released an Expression of Interest (EOI) under round two of the Low Income Energy Efficiency Program. BEST Employment Ltd discussed the EOI with Inverell Shire Council and in turn Glen Innes Severn and Gwydir Shire Councils. A consortium was established with BEST Employment Ltd (BEST) as the Lead organisation and a response to the EOI (The New England / North West Energy Efficiency Campaign - NE/NWEEC) was submitted in December 2012. The submission was accepted and a Funding Agreement to the value of $387,781 was signed in August 2013. The total project value including in kind contributions was $466,061. The NE/NWEEC project commenced in August 2013 and will conclude in June 2016 with the submission of the project audited financial report.

Project description

The purpose of the NE/NWEEC project was to assist Participant Households to change their energy consumption behaviours associated with energy use that would result in sustainable energy efficiency practices throughout the New England/North West region of NSW. Specific towns covered were Inverell, Glen Innes, Warialda, Bingara, Delungra and Tingha. The project focused on the provision of information and education in an easily understandable and accessible format to low income households, particularly those participants with low levels of literacy or disabilities that make information interpretation difficult. The project was to engage those on aged and disability pensions, unemployment or study benefits or those identified as struggling to pay council rates. As the target audiences also have capital constraints, the project was designed to support Participant Households through the complexity of the various schemes and rebates available. To be eligible to participate, potential participants of the project had to be in receipt of one or more of the following:

- In receipt of Government income support
- Health Care Card
- Pensioner Concession Card
- Low Income Health Care card
- Commonwealth Seniors Health Care card.

The New England North West Energy Efficiency Campaign was marketed as Powersave to achieve better recognition and engagement with the community.

The Powersave project was aligned to the objectives and proposed benefits of the LIEEP program being;

LIEEP Objectives

- Trial and evaluate a number of different approaches in various locations to assist low-income households to become more energy efficient
- Capture and analyse data and information for future energy efficiency policy and program approaches

LIEEP Benefits

- Assist low-income households to implement sustainable energy efficiency practices to help manage the impacts of increasing energy prices and improve the health, social welfare and livelihood of low income households.
- Build the knowledge and capacity of consortium members to encourage long-term energy

efficiency among their customers or clients.
- Build capacity of Australia's energy efficiency technology and equipment companies by maximizing the opportunities for Australian industries to participate in projects.

The consortium identified five deliverables that we wished to achieve by the conclusion of the Powersave project.

Deliverable 1 – 900 low income households approached
Deliverable 2 – 300 Participant Households assessed
Deliverable 3 – 80% of Participant Households meet their energy reduction targets
Deliverable 4 – 80% of Participant Households report a greater understanding of energy efficiency
Deliverable 5 – 80% of Participant Households energy consumption habits change

4. Trial Methodology

The Powersave project was designed with six distinct phases with participant households. These six phases were;

1. Engagement and community workshops;
2. Home Energy Assessment;
3. Energy Reduction Plan;
4. Monitoring;
5. Reward;
6. Review and evaluation.

This methodology was chosen primarily because of BEST Employments strength in engaging the community and low income households through delivery of contracted Government services. Successful engagement of the community was seen as critical to ensure success of the Powersave project. It was expected that BEST's strong history of community and client engagement would successfully transfer to the Powersave project and ensure project deliverables would be achieved. As a long term provider of employment related services within these communities, BEST had established rapport with community organisations and believed that these existing relationships would facilitate engagement with their clients. It was also expected that BESTs client base of job seekers would actively seek to participate in the Powersave project.

1. Engagement and community workshops

Project participants were recruited through the following strategies;

1. Powersave website and social media;
2. Information kiosks;
3. Media articles, Powersave flyers and newsletters;
4. BEST Employment's existing jobseeker client base;
5. Community Workshops, and
6. Referrals from Community Organisations.

The consortium engaged Waterfall Way Designs (a local website developer) to assist with the design and implementation of the Powersave website. The website was designed to provide easy to understand information on simple energy saving tips that could be implemented in households. The website provided a house plan that the viewer could select different rooms and receive information on how energy could be saved in that particular room. The Powersave website also provided information on the Powersave projects, Community Workshop details, links to Government websites, Powersave newsletters, Government rebates available and 'contact us' form.

The consortium installed Powersave information kiosks in each of the Shire Libraries (Inverell, Glen Innes, Bingara and Glen Innes). The Powersave kiosks were touch screen computers installed in a physical stand that had the Powersave website visible at all times.

The Kiosks allowed members of the public who did not have access to the internet, to have access to the Powersave website and benefit from the information contained therein. Staff at each library were trained in the use of the kiosk and how to navigate the Powersave website so that they could provide assistance to members of the public. The kiosks were touch screen models (with keyboard access as well) to ensure that members of the public not confident with using computers would feel comfortable in using the Kiosk.

Ms Sonya Lange (Inverell Shire Library Manager) and Mr Robert Walters (BEST Home Energy Advisor) displaying the Powersave kiosk

Media releases were also distributed to local newspapers (Inverell Times, Glen Innes Examiner, Warialda Standard and Bingara Advocate) which explained the Powersave project, the benefits of participation and provided contact details should members of the public want to become involved. **(refer to appendix A Inverell Times article)**

Powersave flyers were also distributed throughout local communities via community bulletin boards, community organisations and the local councils. Monthly newsletters were also distributed in similar fashion which included further energy savings tips and advice, case studies and project progress updates. **(refer to Powersave newsletter appendix B)**

BEST Employment promoted the Powersave project internally as a strategy to engage job seekers currently being assisted by BEST Employment. Promotional material was also displayed in BEST Employment sites so that job seekers could be informed of the Powersave project and elect to participate if they wished.

Powersave flyer distributed throughout communities

BEST Employment contacted a number of community organisations such as the Salvation Army, St Vincent De Paul, community colleges, Home and Community Care and Aged Care facilities to discuss Powersave and how their clients could benefit. Once Powersave had been discussed, the community organisations were more than happy for community workshops to be delivered to their respective clients.

During the Community Workshops, attendees were presented with information on the Powersave project including how to interpret their electricity bills, how to research electricity rates between retailers and how to reduce energy consumption in their homes through changing habits or through

the installation of low cost energy saving devices. All attendees were asked to sign attendance sheets and indicate if they wanted to participate in the Powersave project.

BEST's Home Energy Advisor Mr Robert Walters delivering a Community Workshop to the Gwydir Shire Toy Library.

Once Powersave had been explained to organisations such as St Vincent de Paul, they recognised the importance that the project could play in assisting their clients. In the case of St Vincent De Paul, they had been issuing Energy Accounts Payment Assistance (EAPA) vouchers to members of the public who were struggling to pay their electricity bills. St Vincents recognised the value in referring low income households to the Powersave program at the same time to help reduce future bill amounts and reduce their dependence on welfare. **(refer to appendix C, Ms Davis good news story)**

BEST Employments Home Energy Advisor Mr Robert Walters and Employment Consultant Ms Jo-Ann Youll, providing information at a community services expo.

2. Home Energy Assessment

Members of the public who expressed an interest in participating in Powersave and met the legibility criteria then received a free in home, Home Energy Assessment (HEA) conducted by BESTs Home Energy Advisor. During the assessment, data was collected on;

- the previous 12 months of electricity consumption;

- current energy consumption habits of the Participant Household;
- appliances currently used in the home and their frequency of use, and
- Participant Households thoughts on energy efficiency.

Home Energy Advisor Rob Walters measuring fridge temperature and electricity consumption.

During the HEA, BEST's Home Energy Advisor provided specific information to the Participant Household on how they could reduce energy consumption in their home by changing habits on installing low cost solutions such as draft stoppers or sealing air gaps. Data was captured on an IPad during the assessment process and uploaded Steplights Pty Ltd secure server for analysis.

3. Energy Reduction Plan

Data collected was sent to Steplight Pty Ltd for analysis and an Energy Reduction Plan was emailed back to the Home Energy Advisor. The Energy Reduction Plan contained the following information;

- breakdown of energy costs in the Participant Households home;
- itemised list of energy efficient actions that the Participant Household is already undertaking;
- further energy reducing actions that the Participant Household could undertake, and
- the Participant Households 10% energy reduction target.

BEST's Home Energy Advisor then delivered the Energy Reduction Plan to the Participant Household. This provided an opportunity to discuss the information contained within the Energy Reduction Plan and reinforce energy saving tips previously discussed with the Participant Household**. (Refer to Appendix D, Sample Energy Reduction Plan)**

After conducting a Home Energy Assessment and returning a week later with their Energy Reduction Plan, it was pleasing to see that the Participant Household had already changed the their lights to LED's, turned down the hot water system thermostat, insulated the hot water pipes and doors, sealed gaps in the home and negotiated a 14% discount from their electricity retailer.

4. Monitoring

The Home Energy Advisor maintained ongoing contact and provided support to the Participant Household over the next 12 months so that energy consumption data could continue to be recorded. The Participant Household was required to supply a copy of their electricity retailer invoice so that consumption data could be recorded. The Participant Households progress towards their energy reduction target of 10% could then be monitored. This contact also provided further opportunities for the Home Energy Advisor to reinforce energy saving tips and maintain engagement with the Participant

Household.

5. Reward

All Participant Households were rewarded for their participation in the Powersave project. This participation reward consisted of a door snake, thermometer (with measurements for fridge, freezer, hot water, heating and cooling), foam strips for sealing gaps and Jackson foot controlled power board. Participant Households that achieved their energy reduction target of 10% over a 12 month period were further rewarded with a range of energy efficient devices. These devices included, energy efficient kettles, energy efficient panel heaters, led lights, remote controlled powerboards and LED security lights. **(Refer to appendix E, Ms Lousie and Elizabeth Constable good news story)**

6. Review and Evaluation

Data collected from Participant Households included quantitative and qualitative data. During the Home Energy Assessment, data was captured on 4 Data collection categories;

- Trial Identification Profile 10 Data Fields
- Household community base 16 Data Fields
- Dwelling features 20 Data Fields
- Energy requirements 16 Data Fields

These data fields were chosen as they directly aligned to the original Data schema supplied by CSIRO during the LIEEP application process. Five data fields within the Household Community base asked qualitative questions (Pre Home Energy Assessment Survey);

- How interested are you in conserving energy in the home?
- How comfortable do you feel (heating/cooling/etc)?
- How empowered do you feel in relation to your energy consumption?
- How in control do you feel of your finances?
- How much has your behaviour changed over the last 2 years?

(Refer to appendix F, Powersave Initial Data Schema)

The Participant Households energy consumption was monitored and recorded over the next twelve months. At the conclusion of the twelve month monitoring period, another survey was conducted. This Post Assessment Survey included the same questions that were also asked during the Pre Home Energy Assessment Survey and also included the following additional questions;

- Did the program help you identify that you were eligible for a rebate you were not aware of?
- Which rebates did you obtain?
- As a result of the Home Energy Assessment, did you negotiate a better electricity rate with your retailer or another provider?
- Please indicate if you upgraded any appliances since your Home Energy Assessment?
- Did you change habits in heating/cooling in your home?

These questions were chosen to align with the projected benefits of the Powersave project and would help demonstrate whether the project was successful in achieving these objectives.

5. Quantitative Results

Deliverable 1 – 900 low income households approached

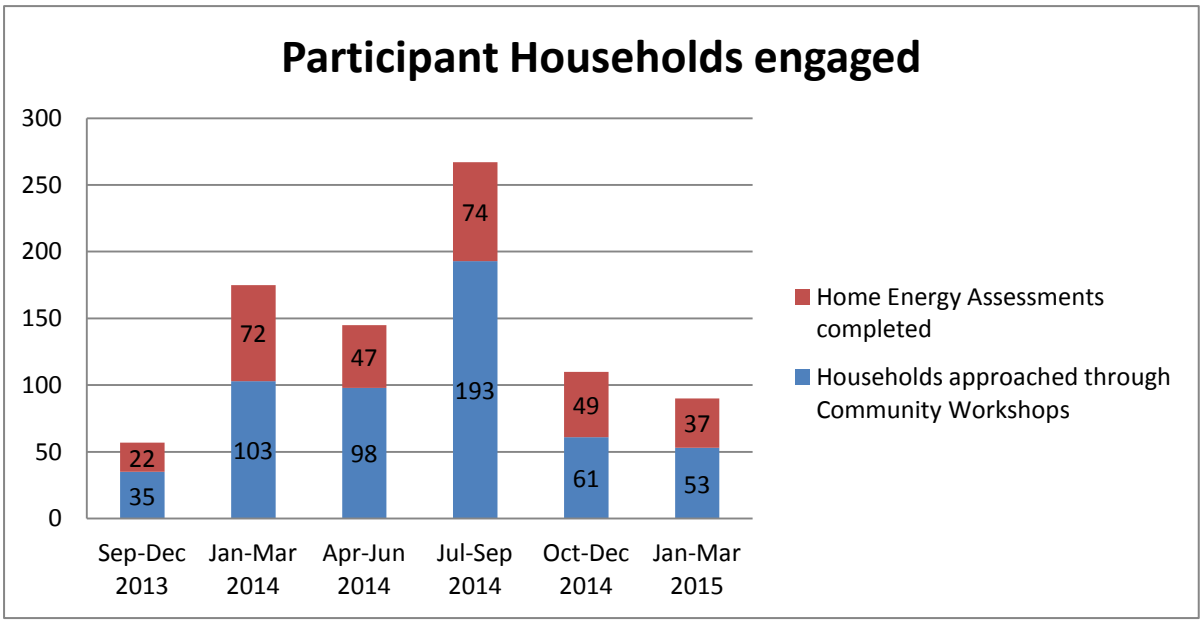
Methodology

All attendees at Community Workshops were asked to record their name, contact details, if they were interested in participating in the Powersave project and preferred day/time for a Home Energy Assessment to be conducted if they had expressed an interest in participating. Attendees were not obligated to record their details and therefore actual attendances at community workshops would have been higher than recorded.

Result

A total of 41 Community Workshops (610 attendees) were conducted across the Powersave footprint. These workshops included a variety of community organisations including Indigenous organisations (ANAIWAN Tingha, ARMAJUN, Linking Together Centre), disability support services (Glen Industries), parenting support groups (Ashford Playgroup, Warialda Toy Library, Inverell Family Youth Services Parenting Plus), aged care support groups and providers(Inverell Home and Community Care, Delungra Home and Community Care), service organisations (Glen Innes Rotary, Warialda Probus) and community colleges (Inverell Community College). **(refer graph 1)**

Graph 1 Households approached and subsequently engaged



This graphs displays the number of households approached through Community Workshops and subsequently engaged in Powersave during each milestone period.

Deliverable 2 – 300 Participant Households assessed

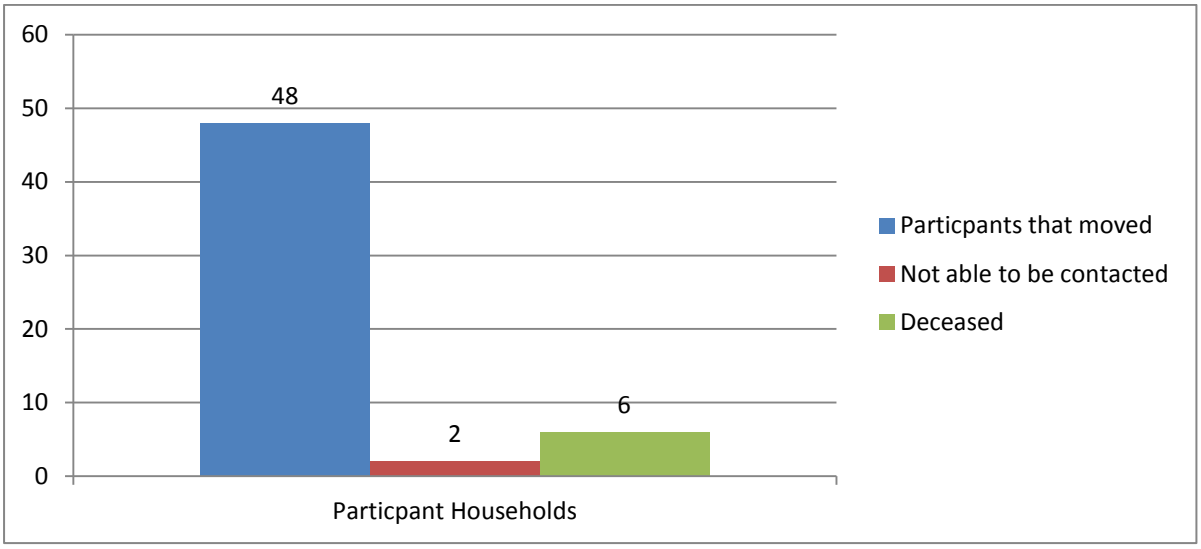
Methodology

All attendees at Community Workshops were invited to participate in the Powersave project. Those that expressed an interest and were eligible had free Home Energy Assessments completed. Each Home Energy Assessment was recorded as a single Participant Household.

Result

Three hundred Participant Households have been assessed. Fifty Six Participant Households did not complete their participation in the project due to changing address, no longer being able to be contacted or they had passed away. **(refer graph 2)**

Graph 2 Participant Households that did not complete their participation in the Powersave project



This graph displays the number of Participant Households that exited the Powersave project due to relocation, passing away or no longer contactable. It demonstrates the challenge in maintaining contact with low income households.

Deliverable 3 – 80% of Participant Households meet their energy reduction targets

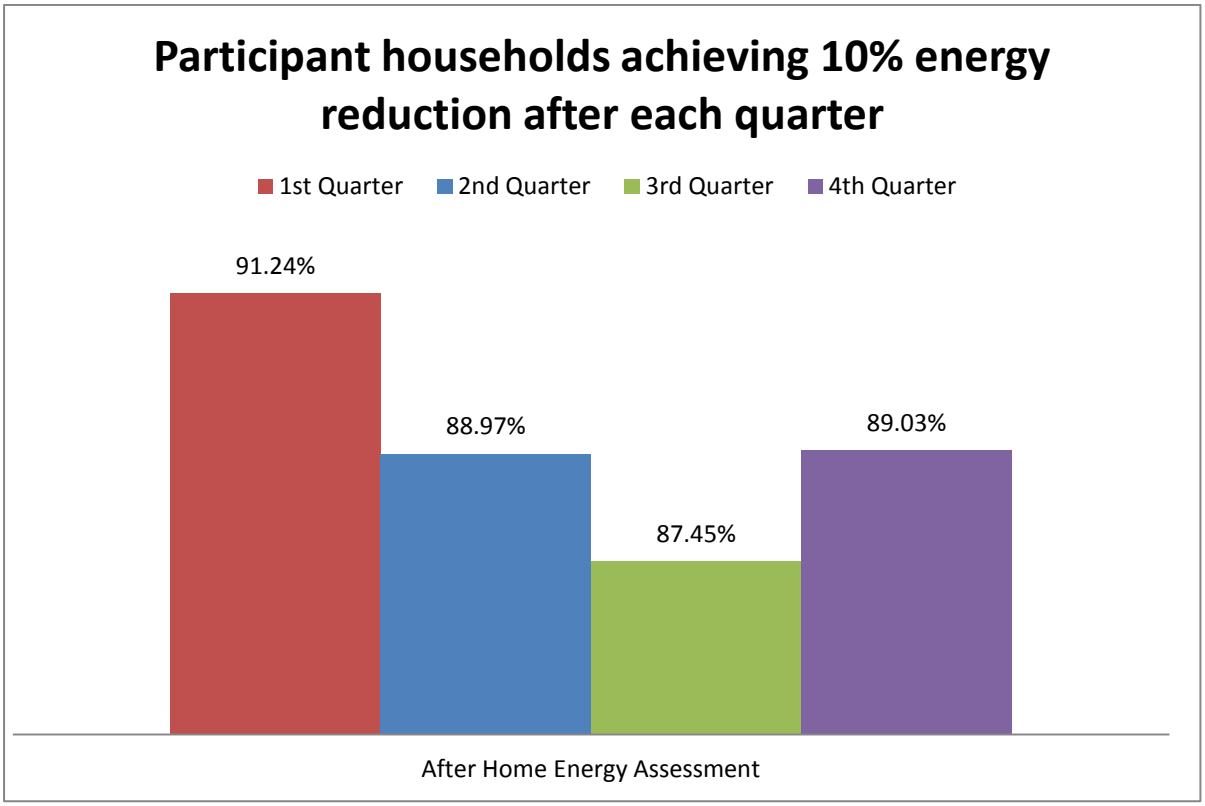
Methodology

All Participant Households had their previous 12 months of electricity consumption recorded to serve as a baseline. Participants Households electricity consumption was then recorded for 12 months after their Home Energy Assessment was completed and Energy Reduction Plan implemented. Electricity consumption 12 months before and 12 months after the Home energy Assessment were then compared for analysis.

Result

More than 89% of participant households have reduced their energy consumption by 10% or more over four quarters. **(refer to graph 3)**

Graph 3 Participant Households achieving a 10% reduction in energy consumption



This graph details the percentage of Participant Households that achieved a 10% reduction in electricity consumption for each quarter after their Home Energy Assessment.

Deliverable 4 – 80% of household participants report a greater understanding of energy efficiency

Methodology

At the completion of the Home Energy Assessment, Participant Households were asked if they now had a greater understanding of energy efficiency. Responses were recorded.

Result

Ninety nine percent of Participant Households are reporting a greater understanding of energy efficiency after a Home Energy Assessment had been completed.

Deliverable 5 – 80% of Participant Household energy consumption habits change

Methodology

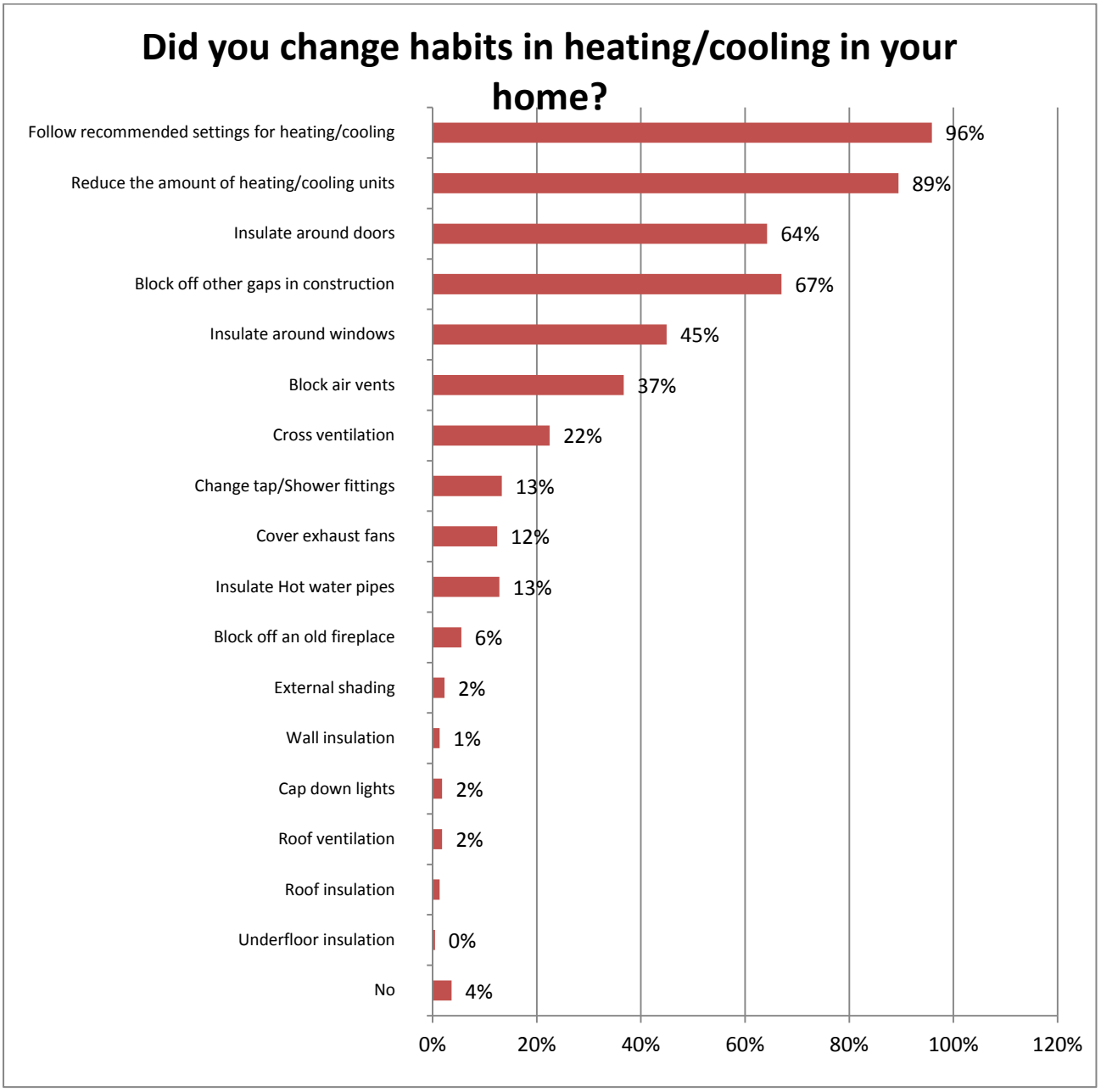
At the completion of gathering 12 months of electricity consumption post Home Energy Assessment, Participant Households were asked if they had changed their habits in heating or cooling the home**.** If Participant Households had changed their heating or cooling habits, they were also asked what habits they had changed.

Result

Heating and cooling of the home consumes the most energy in the average Australian Household. We therefore asked Household Participants if they had changed heating or cooling habits in their home after their Home Energy Assessment was completed. Ninety Six percent of Household

Participants indicated that they had. **(refer to graph 4)**

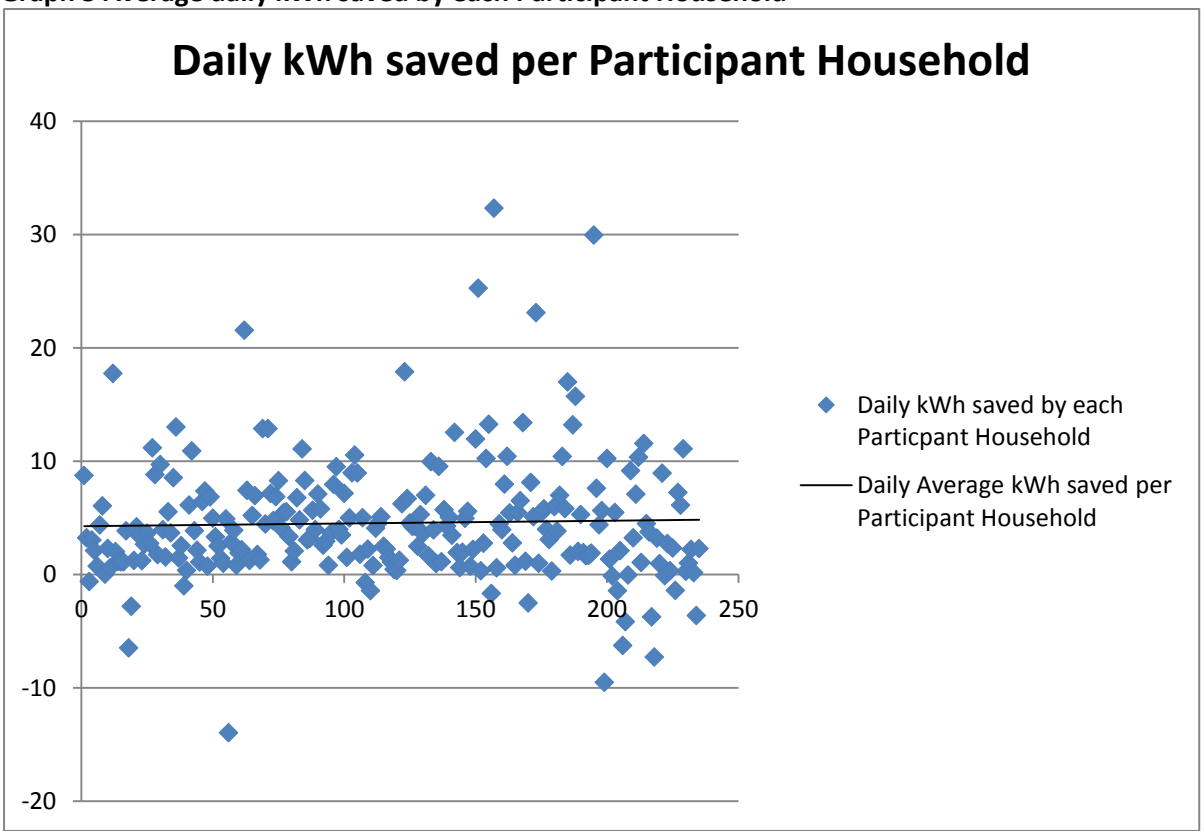
Graph 4 Heating/cooling habits changed



This graph details changes made by Participant Households to their electricity consumption habits. Only 4% had not changed habits in the 12 months after their Home Energy Assessment.

As a result of participating in Powersave, Participant Households that completed their involvement in the project saved a total of 12,804 kWh over a 12 month period. On average Participant Households have reduced their daily energy consumption by 4.54kWh, an approximate saving of $414.27 per year (based on 25c per kWh). **(refer to graph 5)**

Graph 5 Average daily kWh saved by each Participant Household



This graph plots each Participant Households savings (or increase) in daily average electricity consumption over 12 months.. The trend line demonstrates an average of 4.54kWh was saved by Participant Households.

6. Qualitative results

Methodology

Surveys conducted with Participant Households at the commencement of their Home Energy Assessment (Pre) and at the conclusion of the 12 month monitoring of data consumption (Post) has allowed for the direct comparison of the Participant Households thoughts Pre and Post Home Energy Assessment.

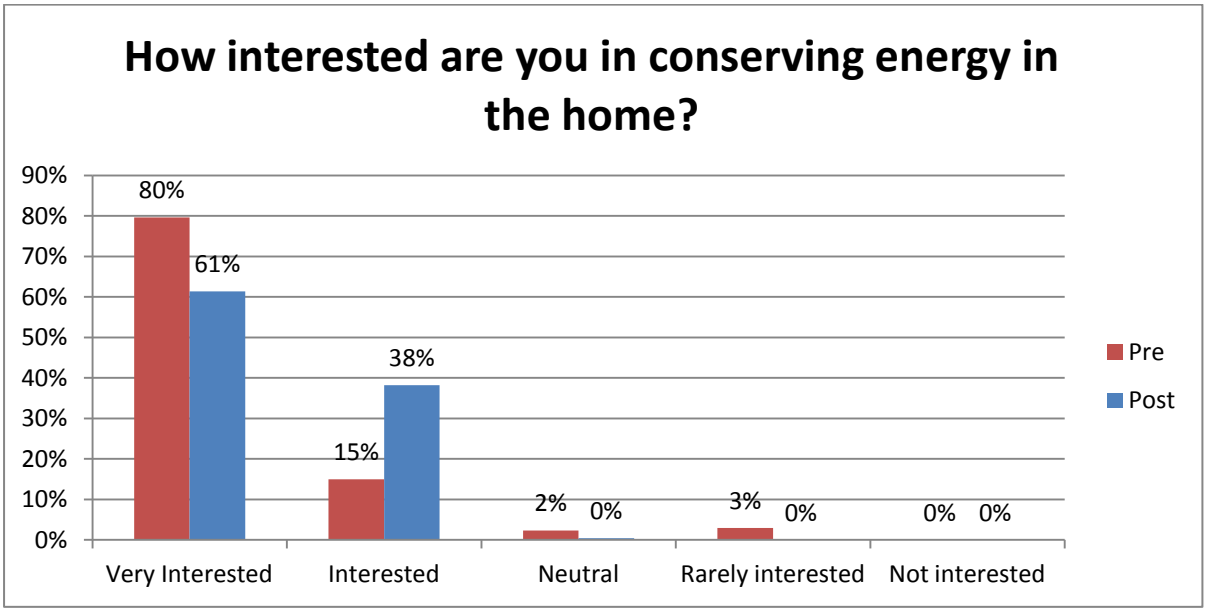
Results

The following questions were asked**.**

1. How interested are you in conserving energy in the home?
2. How comfortable do you feel (heating/cooling etc)?
3. How empowered do you feel in relation to your energy consumption?
4. How in control do you feel of your finances?
5. How much has your behaviour changed over the last two year?

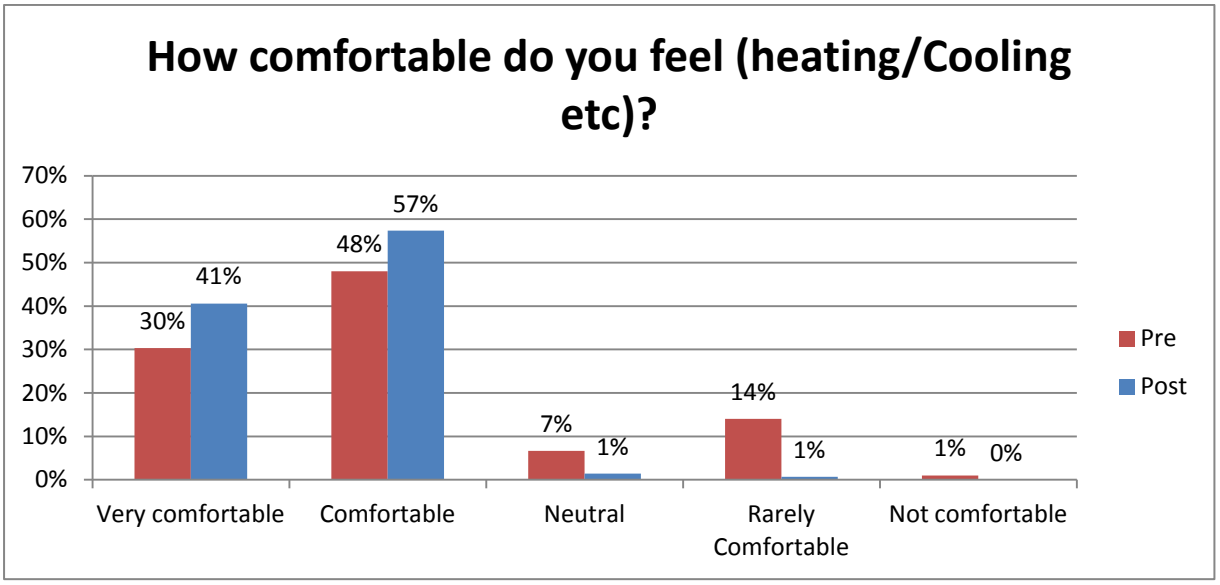
Results of the questions are recorded in graphs 6 to 10.

Graph 6 How interested are you in conserving energy in the home.



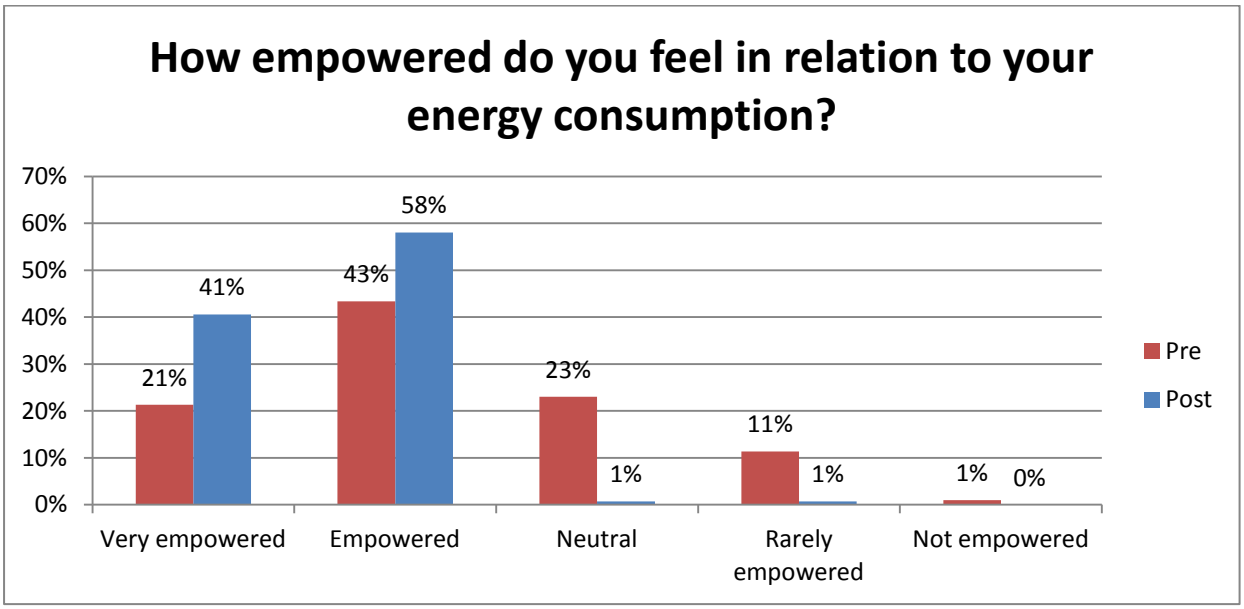
This graph displays an overall increase in interest from Participant Households in conserving energy.

Graph 7 How comfortable do you feel?



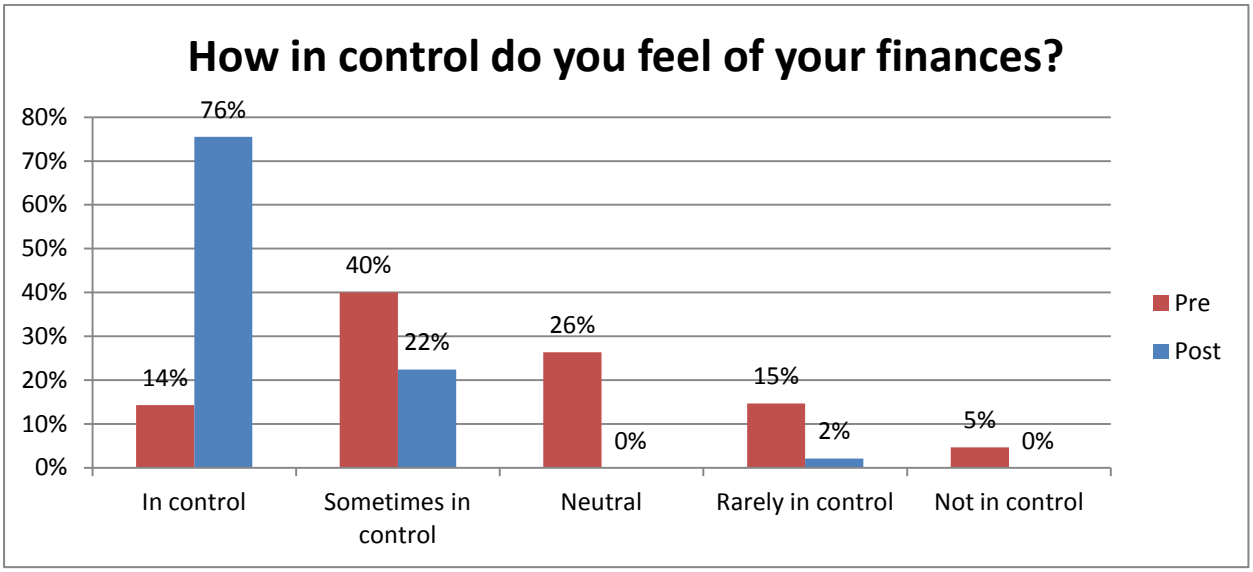
This graph displays an overall increase in comfort levels of Participant Households after participation in the Powersave project.

Graph 8 How empowered do you feel in relation to your energy consumption



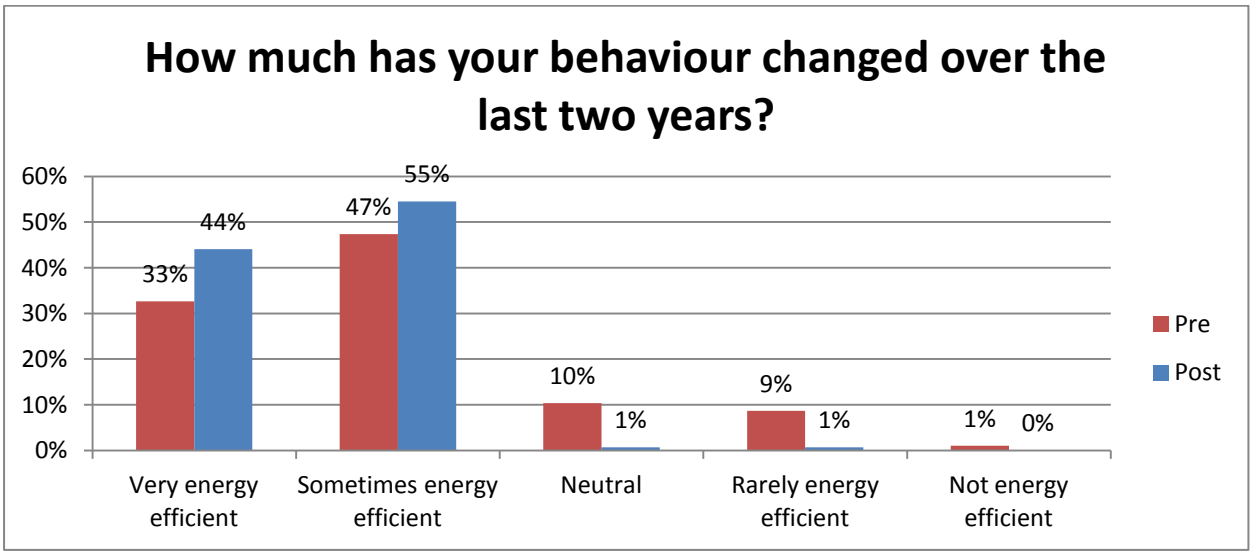
This graph displays an overall increase in Participant Households empowerment in relation to energy consumption.

Graph 9 How in control do you feel of your finances?



This graph displays a large increase in Participant Households control of finances.

Graph 10 How much has your behaviour changed over the last two years?



This graph displays an overall increase in Participant Households energy efficient behaviours.

The additional following questions were asked of Participant Households at the conclusion of the 12 month monitoring period of energy consumption.

Table 1

Did the program help you identify that you were eligible for a rebate you were not aware of?		
Answer Options	**Response Percent**	**Response Count**
No	**52.7%**	**119**
Yes	**47.3%**	**107**
answered question		**226**
skipped question		**0**

Fourty seven percent of Household Participants identified that they were eligible for a rebate as a result of participating in the Powersave project.

Table 2

Which rebates did you obtain?		
Answer Options	**Response Percent**	**Response Count**
Low income household rebate	**86.9%**	**93**
Family energy rebate	**20.6%**	**22**
Life support Electricity rebate	**2.8%**	**3**
Medical energy rebate	**11.2%**	**12**
answered question		**107**
skipped question		**119**

Of those fourty seven percent identified as being eligible for a rebate, eighty six percent identified that they were entitled to the Low Income Household rebate.

Table 3

As a result of the Home Energy Assessment, did you negotiate a better electricity rate with your retailer or another provider?		
Answer Options	**Response Percent**	**Response Count**
No	**4.9%**	**11**
Yes	**95.1%**	**212**
answered question		**223**
skipped question		**3**

A staggering ninety five percent of Household Participants negotiated a cheaper electricity rate with their energy retailer or another retailer.

Table 4

Please indicate if you upgraded any appliances since your Home Energy Assessment?		
Answer Options	**Response Percent**	**Response Count**
I didn't upgrade any appliances	**30.2%**	**68**
Fridge/freezer	**28.9%**	**65**
Hot water system	**16.4%**	**37**
Heating	**26.2%**	**59**
Cooling	**15.1%**	**34**
Washing machine	**0.0%**	**0**
Cooking	**3.6%**	**8**
TV	**7.1%**	**16**
Computer/media	**0.0%**	**0**
Lighting	**19.1%**	**43**
Clothes Dryer	**0.0%**	**0**
Dishwasher	**0.0%**	**0**
Solar PV	**6.2%**	**14**
Other?		**2**
answered question		**225**
skipped question		**1**

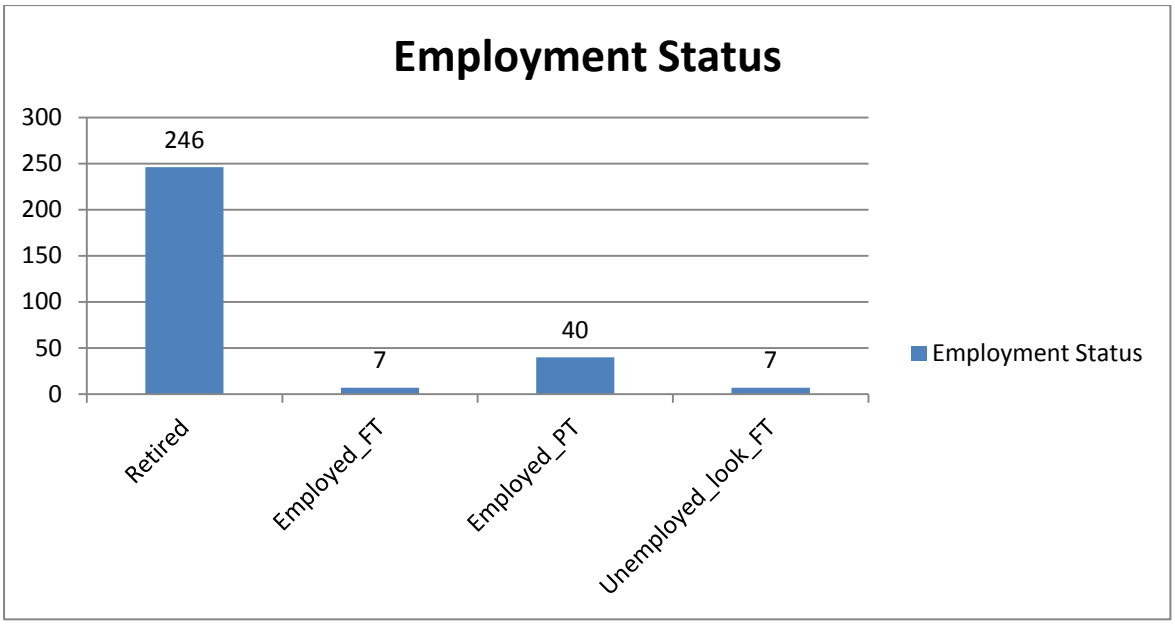
Just under seventy percent of Household Participants had upgraded appliances in their home. The top four appliances upgraded were fridges/freezers, heating and cooling appliances and hot water systems. Data was not collected on whether the upgraded appliance used less power than its predecessor.

7. Discussion

Recruitment Strategies

As a long term provider of Government contracted employment services, BEST Employment was well positioned to leverage off our existing job seeker client base within the Powersave target area. It was anticipated that a large proportion of Participant Households would be from BEST's client base of jobseekers. This however proved not to be the case, with the majority Participant Households being retirees. **(refer to graph 10)**

Graph 10 Employment status of Participant Households



This graph displays the employment status of Participant Households in Powersave. It clearly indicates that the majority of Participant Households were elderly.

While Powersave was promoted to the BEST Employment Services staff and jobseekers, it did not result in many referrals (just 7). This may be due to energy conservation not being an immediate priority for job seekers as they may have many other conflicting issues such as housing instability. It is pleasing to note however that retirees, our most vulnerable people in society and those with the less disposable income, readily engaged with the Powersave project. This may be due to retirees being more responsive to the Community Workshops and more willing to participate.

The Powersave website was viewed by 526 users with an average viewing time of 7 minutes and thirty six seconds. This would indicate that the website was successful in providing easy to understand information for viewers. However, only one referral to the Powersave program was made through the websites booking form. **(refer to appendix G, Powersave website)**

The most successful method of recruitment was directly approaching community organisations that had an existing client base that would meet the Powersave criteria. Welfare, Home and Community Care, Aged Care, Service clubs and Indigenous organisations were receptive to BEST's Home Energy Advisor conducting Community Workshops with their clients. These workshops were extremely successful in recruiting suitable Participant Households and greatly appreciated by the community organisations. **(refer to appendix H, Probus thank you letter)**

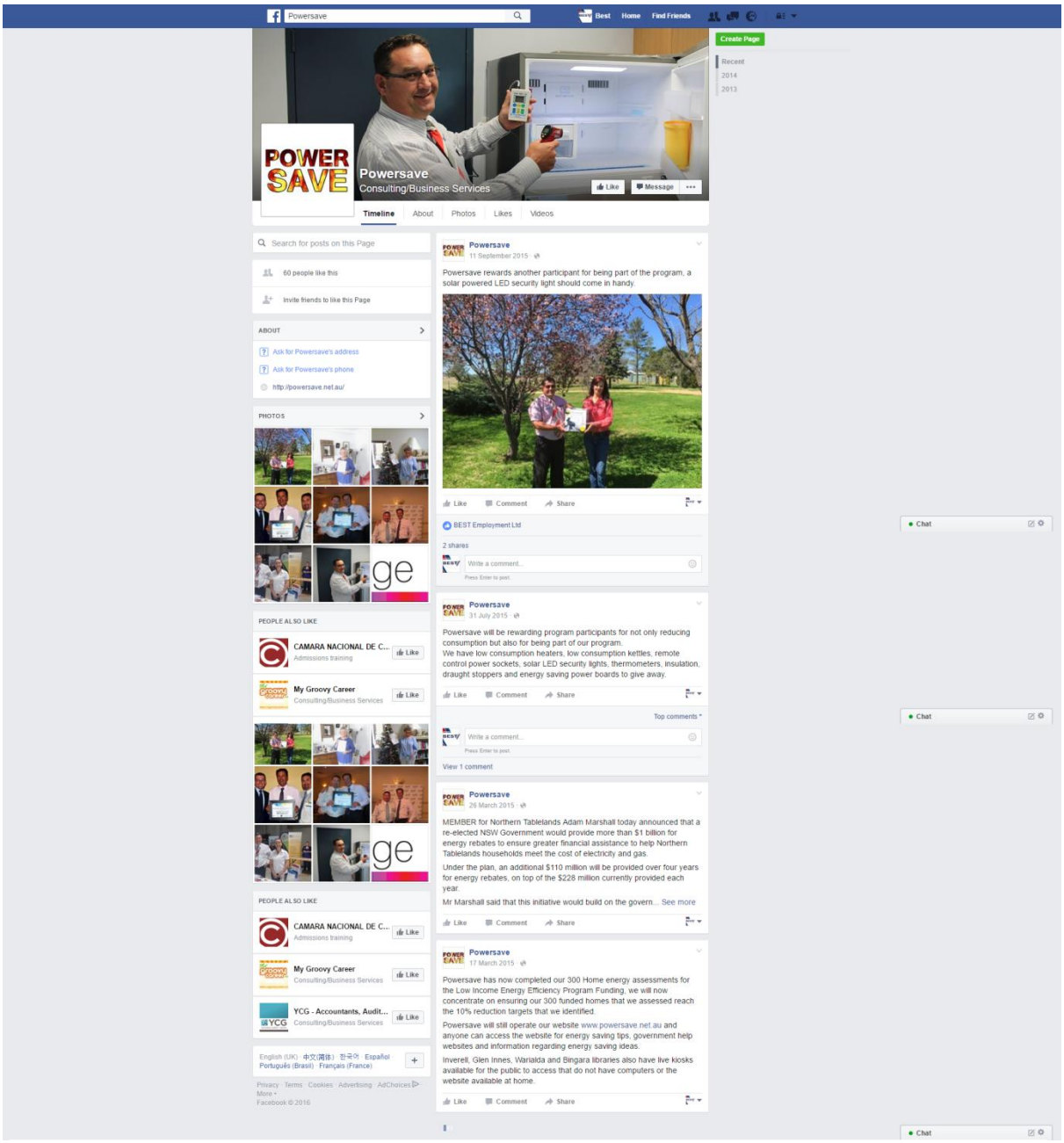
Provision of Information

The most effective methods of overcoming information barriers were through the Powersave Community Workshops, subsequent Home Energy Assessments and Energy Reduction Plans. The Community Workshops could be tailored to the viewing group with questions being asked and answered in a non threatening environment. Workshop content was clearly explained with examples, diagrams and case studies that were relevant to the viewers.

BEST Employments Home Energy Advisor Rob Walters conducted a Powersave workshop with the Mari Giwiirr Men's group. The workshop was conducted on country at Lemon Tree Flat with seventeen elders attending. As a result of the workshop, fifteen elders hadengaged as Participant Households and said that they would spread the word amongst their community.

of how much energy could be saved as well as examples of different energy efficient technology that could be installed i.e. pictures of the different energy efficient light globes on the market.

Social media such as Facebook and twitter was also used with limited success. This was mainly due to the large number of retirees that had been engaged through Powersave that were not current users of social media.



The Powersave Facebook page provided an additional means of providing information to the Participant Households or community members.

Data Monitoring

Monitoring of Participant Household energy consumption was problematic. Very few Participant Households provided copies of energy retailer invoices once they had been received by the Participant Houeshold. BEST's Home Energy Advisor in most cases had to contact the Participant Household to either sight a copy or verbally receive the information from the Participant Household. This proved time consuming and could result in data errors if the Participant Household misread their invoice. A better result would have been to install energy recording meters with report to base functionality. Contact with Participant Households did however allow the Home Energy Advisor to discuss energy savings with the Participant Household and to maintain engagement with Powersave.

Problems were encountered in the storage and analysis of data. Data was primarily stored in spreadsheets which made analysis of data challenging. Use of data analysis software would have made the analysis and reporting of data much easier. It would also have been beneficial to engage with a university to assist in the analysis of data and ensure that statistically sound practices were adopted.

Outcomes

There were six significant outcomes for Participant Households involved in the Powersave project.

1. The achievement of 89% of Participant Households reducing their energy consumption over a 12 month period by 10% **(graph 3).** This was achieved by the Participant Household changing energy consumption habits or undertaking low cost solutions in the home **(graph 4)**.

2. The reduction of 10% in energy consumption has resulted in cost savings for the participant households. On average Participant Households have reduced their daily energy consumption by 4.54kWh, an approximate saving of $426.16 per year (based on 25c per kWh). **(refer to appendix I, good news story Mr Andrews)**

3. An unexpected outcome that directly impacts on the Participant Households energy bill is the number of participant households that were identified as being eligible for a Government rebate (table 1 and 2). Fourty Seven percent of surveyed Household Participants indicated that they had identified that they were eligible for a Government rebate. This would indicate that there is a failure to inform or a failure for people to realise their entitlements. **(refer to appendix J good news story Mr Parker)**

4. Another unexpected outcome was the number of Participant Households that renegotiated a cheaper rate of electricity with their current or a new electricity retailer (table 3). Ninety Five percent of Household Participants negotiated a cheaper rate. Data was not collected on the price of electricity being supplied so additional savings are hard to quantify but conversations with Household Participants would suggest that of those that negotiated a cheaper rate, a reduction of a 5-10% was negotiated in most cases. **(refer to appendix k, good news story Ms Hamel)**

One Participant Household could not pay the electricity bill and turned off the hot water and stove at the meter board. After participating in Powersave they have turned on the stove and hot water, changed their electricity consumption habits and reduced their electricity consumption by over 10%.

5. Participant Households also recorded a large increase in how comfortable they felt in their home after participation in the Powersave project **(graph 7).** This clearly demonstrates that Participant Households were able to reduce their electricity consumption while increasing their in home comfort.

6. Participant Households also advised that they felt more in control of their finances after participation in the Powersave project **(graph 9).** Clearly this demonstrates that not only were Participant Households able to save money, but that they felt more financially empowered.

Cost Analysis based on 300 Participant Households

Level	Cost Level	Cost Data Required	Cost per participant
1	Direct trial approach	**A. Cost of delivering the trial approach to the Participant Household** - Cost of development of the 'Energy Reduction Plan' **-**Delivery of the Home Energy Assessment	$375.00
2	Trial Component	A. Cost of delivering the trial approach to the Participant Household, **and** **B. Costs associated with engaging and maintaining a Participant Household** -Development, installation and maintenance of Kiosks in local Libraries -Cost of the development of the project website, Facebook page and Twitter -Cost of newsletters, flyers and other media/communication that promote energy efficiency to households and communities -Costs of data collection, analysis and reporting -Costs of the reward program	$1,104.00
3	Total Business	A. Cost of delivering the trial approach to the Household Participant, and B. Costs associated with engaging and maintaining a Participant Household **C. Cost of running an organisation to do the above**	$1,323.00
4	Total trial	A. Cost of delivering the trial approach to the Household Participant, and B. . Costs associated with engaging and maintaining a Participant Household, and C. Cost of running an organisation to do the above **D. Cost of participating in a government funded trial**	$1,553.54

Due to time and funding constraints, not all benefits of participating in the Powersave project have been measured. Those that were measured were for a 12 month period only and do not reflect the benefits that Participant Households would gain over an extended period of time. Therefore the Cost-Benefit ratio has been calculated over a 5 year period.

Additional benefits to Participant Households include;

- Increased comfort levels **(refer to graph 7)**
- Increased savings **(refer to tables 1-3)**
- Increased confidence
- Better control of finances **(refer to graph 9)**
- Lower incidents of illness

Although the Powersave project did not directly measure the monetary value of all these benefits, they should not be discounted when considering the Cost-benefit ratio.

Energy Cost reduction	Energy Consumption reduction
Energy Cost reduction (@25c per kWh)	Energy Consumption reduction
$2130.80 over 5 years	**8522.75 kWh over 5 years**

Level	Cost	cost benefit ratio	Explanation
1	Direct Cost	0.18	Every 18c invested yields $1 benefit
2	Direct Cost plus participant Household recruitment and retention costs	0.53	Every 53c invested yields $1 benefit
3	Total Business	0.64	Every 64c invested yields $1 benefit
4	Total Trial	0.75	Every 75c invested yields $1 benefit

Lessons learned

A number of key learning's have been identified during the project and are outlined below.

Positive

- Having existing strong community links is paramount to the success of the project. It takes time to establish community linkages, build trust and rapport with community organisations.
- Engaging early with organisations that provide assistance to community members (i.e. St Vincents De Paul) facilitates a process whereby the agency can directly refer people to the project for assistance on reducing their energy bill.
- It is critical that that the Home Energy Advisor is passionate about energy efficiency, has the ability to effectively communicate with various community cohorts, can build trust with project participants and is empathetic to their needs.
- Participants require ongoing assistance and persistent advocacy, particularly the elderly. They are vulnerable to energy retailer predatory tactics, feel disempowered, lack confidence and ability when negotiating with electricity retailers.
- There is strong demand in the community for this service to be ongoing.

Negative

- Low income household's change addresses regularly. This highlights the instability that many low income households experience in sourcing and securing stable accommodation.
- Despite BEST being a provider of Employment Services, we did not engage a lot of unemployed in the project. This may be due to many other conflicting social issues that are

more of a priority.

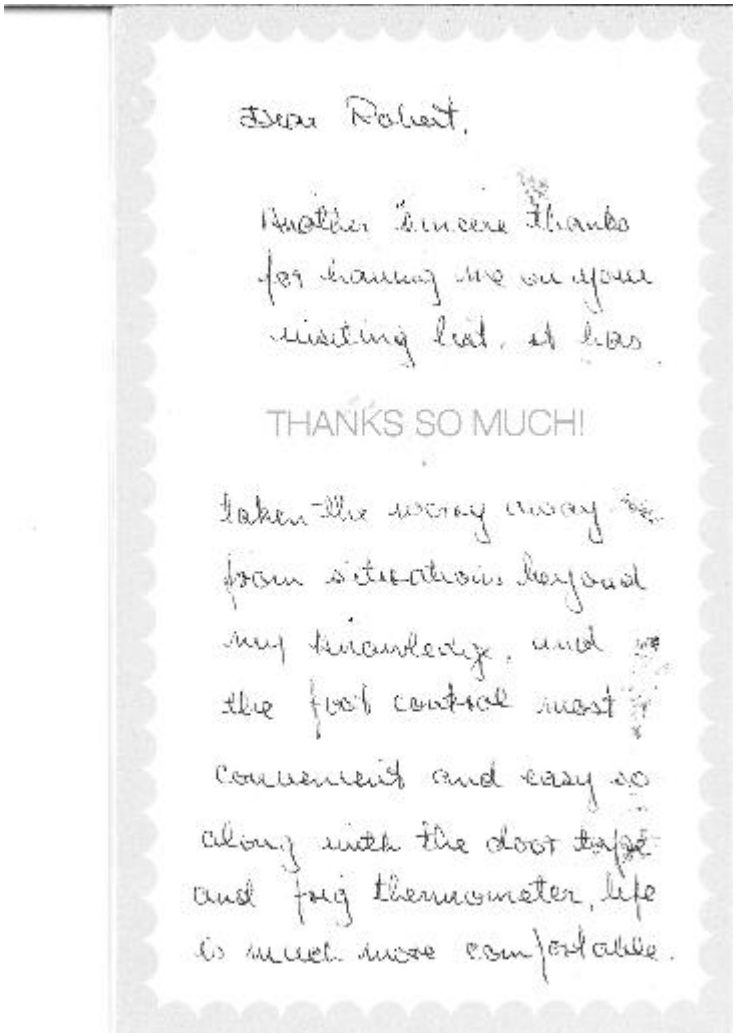
- Despite the excellent rapport with participants, it was challenging to obtain their energy consumption data after the Home Energy Assessment was completed.
- Participants did not always maintain their scheduled appointment or changed their mind about having the Home Energy Assessment undertaken after initially expressing interest.

The development of the Powersave website, Facebook page and Twitter account was a strategy employed to trial these methods in engaging the community in the Powersave project. Kiosks installed in the Shire libraries helped promote the project but were reliant on the library staff to promote their use. Additional promotional material near the kiosk may have assisted in increased use.

BEST also found that once the Energy Reduction Plan had been delivered and discussed with the household, ongoing advice and advocacy was requested by many participants (anecdotal >15% of participants) and was a key element of our projects success.

The Powersave project was successful in achieving its deliverables and the LIEEP objectives. It has identified that there is an ongoing need, particularly amongst the elderly for ongoing advocacy and support in when dealing with energy retailers. Many elderly simply do not understand their electricity bills, don't realise that they are entitled to rebates and lack the confidence to negotiate cheaper rates.

One Participant Household with very high electricity consumption had a Home Energy Assessment conducted. It was determined that their hot water heater was faulty causing an increase of $2500 to their electricity bill. They complained to the real estate agent who was not interested. They then contacted the Energy and Water Ombudsman and now the hot water system has been replaced, consumption has halved and they are negotiating compensation.



This thank you card was sent by one of the Participant Households to BEST's Home Energy Advisor, Mr Robert Walters.

Dear Robert,

Another sincere thanks for having me on your visiting list, it has taken the worry away from situations beyond my knowledge, and for the foot control most convenient and easy. So along with the door tape and frig thermometer, life is much more comfortable.

Warm regards.

8. Project Administration, Operation and Processes

The Powersave project was managed internally by the Project Manager. A project Plan was developed which detailed how the Powersave project was to be managed and included plans on Scope, Procurement, Change, Schedule, Quality and Risk Management. The plans outlined roles and responsibilities amongst the project team and the frequency and scope of any meetings. The following roles were identified within the project.

Project Sponsor Liaison Officer (1 position – employed by BEST Employment Ltd) – responsible for overall management of and compliance with of the LIEEP Funding Agreement for the Powersave Project.

Project Manager (employed by BEST Employment Ltd) – responsible for all management for the Powersave Project. The Project Manager was responsible for planning, creating, and/or managing all work activities, variances, tracking, reporting, communication, performance evaluations, staffing, and internal coordination with functional managers.

Home Energy Advisor (employed by BEST Employment Ltd) – responsible for the delivery of workshops, Home Energy Assessments and collection and recording of associated data.

ICT Project Manager (employed by Inverell Shire Council) – responsible for oversight of all Information and Communication Technology requirement by the tasks for the Powersave Project as well as ensuring functionality is compliant with quality standards. .

ICT Support Staff (employed by Inverell Shire Council) – responsible for the ICT Hardware and software installation, maintenance and support requirements of the Powersave Project. All ICT related tasks of this project will be reviewed by the ICT Project Manager prior to implementation.

Consortium Representatives (Gwydir Shire Council, Glen Innes Severn Shire Council and Inverell Shire Council) – responsible for assisting the Project Manager. This included implementation, monitoring and report on quality control and assurance standards inclusive of related logs throughout the project.

Powersave ran smoothly with minor involvement from the other consortium partners required once the project was well underway. This was due largely to the success of the project in engaging Participant Households. Consortium partners continued involvement in the project focused on maintaining the Powersave Kiosks in their respective Shire libraries and ensuring that staff kept the machine turned on and available to assist members of the public with it's use. Staff from the Inverell Shire Council were instrumental particularly at the start of the Powersave with assisting in setting up the software on the Powersave kiosks and installing them at the shire libraries.

The Powersave project did result in increased knowledge and capacity of some of the consortium members. Training was provided to staff from BEST Employment (2) and Inverell Shire Council (1) on how to conduct Home Energy Assessments. Further training was also delivered to Shire Library staff in Inverell, Glen Innes, Warialda and Bingara on how to use the Powersave Kiosks and navigate the Powersave website. Additionally, two Home Energy Assessment kits had been purchased from Steplight Pty Ltd for BEST's Home Energy Advisor to use during the Home Assessment process. Some of the rewards purchased for Participant Households were also supplied by Steplight Pty Ltd.

A project Risk Management Plan was developed prior to commencing Powersave. All consortium members contributed towards identifying project risks and appropriate controls. Risks were reviewed regularly to ensure controls remained effective and new risks identified as the project progressed. A Compliance Plan was also developed which detailed how the project would be managed to ensure compliance with the Funding Agreement, Privacy laws and Federal and State legislation. Again, all consortium members had the opportunity to contribute to the plan. Monitoring and review of both plans ensured that the project ran smoothly with no problems identified with compliance.

Overall communication with the Department was collaborative and productive. Frequent conversations and emails between the Project Manager and Account Manager ensured that issues could be discussed openly and resolved to both parties satisfaction. The LIEEP extranet was a great initiative that allowed the easy transfer of ideas and information between Grant recipients and the Department. Submission of Milestone reports and tax invoices were straight forward and actioned by the Department in a timely manner.

A greater understanding of the requirements in implementing and monitoring similar projects has been achieved. BEST recognises that it would have been beneficial to engage with a University or other third party provider to provide statistical and data analysis. This would provide more credibility to the project and ensure that statistically significant data is captured.

9. Budget

A summary of the initial project budget is outlined below in the table below.

Organisation	Cash or in-kind	Amount (ex GST)
LIEEP Funding	Cash	$387,781
BEST Employment Ltd	Cash	$3,000
BEST Employment Ltd	In-kind	$59440
Inverell Shire Council	In-kind	$3,960
Glen Innes Severn Council	In-kind	$3,960
Gwydir Shire Council	In-kind	$7,920
Totals (ex GST)		$466,061

The completed project budget is summarized below. Please note that the financials are yet to be audited at the time of drafting the final report and some variations may occur once completed.

Project lifecycle	Budget	In Kind	Expenditure	Variation
Expenditure				
Wages and staff costs	243,000		271,049	(28,049)
Administration	15,000		20,239	(5,239)
Insurance	3,281		3,341	(60)
Community Workshops	15,000		395	14,605
Vehicle lease and Travel costs	45,000		41,492	3,508
Portable IT infrastructure	4,500		6,524	(2,024)
Marketing	7,000		3,612	3,388
Kiosks	26,000		17,058	8,942
Devt of Portal and Database	21,000		16,073	4,927
Rewards program		11,000	14,633	(3,633)
Facilities for project Staff		34,440	37,294	(2,854)
Project Management		25,000	30,433	(5,433)
Kiosk housing and maintenance		15,840	13,440	2,400
Total	379,781	86,280	475,582	(9,521)

The project was delivered $9521 over budget within the in kind contribution. This was largely due to the time involved in preparing the final report. There was an overall overspend in wages but this was offset with under spends in the purchase of Kiosks, marketing and delivery of Community Workshops. The project achieved excellent value for money when the outcomes of the project are compared with the project expenditure.

10. Conclusion

In conclusion, it is evident that the success of the Powersave project and indeed future energy efficiency programs is reliant on the successful engagement of target groups. Engagement can be a lengthy and challenging process. To be successful, trust and rapport must be established as a foundation for any engagement strategy. Utilising existing relationships with community organisations such as St Vincents De Paul and the Linking Together Centre ensured that Powersave could engage quickly with their established clients as these organisations already had established relationships with their clients. It is however critical that engagement is an ongoing process and any further energy efficiency programs needs to ensure that participants can continue to access the support and advocacy that they need. Ongoing advocacy was particularly identified for elderly Participant Households in Powersave. They often required assistance with understanding their energy bills and were victims of energy retailer's predatory tactics.

A Participant Household changed electricity suppliers 3 times in 9 months and did not remember changing once. He is 74 and has hearing aids in both ears.

Powersave clearly demonstrated that Community Workshops and Home Energy Assessments were successful in disseminating energy efficiency information to Participant Households. By changing energy consumption habits and minimal expenditure, significant savings and increased comfort in the homes of Participant Households were achieved. The money saved and increase in comfort would have positive impacts on peoples social, health and general well being.

The Powersave project was fully successful in achieving the project deliverables, objectives and benefits of the LIEEP program. The Powersave project achieved four of the five project deliverables as detailed in the below table.

Deliverable	Target	Achieved
1	900 low income households approached	Partially
2	300 Participant Households assessed	Fully
3	80% of household participants meet their energy reduction targets	Fully
4	80% of household participants report a greater understanding of energy efficiency	Fully
5	80% of Participant Household energy consumption habits change.	Fully

Participant Households also acknowledged that additional savings had been achieved through accessing Government rebates or renegotiating their electricity rates with their energy retailer.
Powersave to a lesser extent, assisted consortium members (Inverell, Glen Innes Severn and Gwydir Shire Councils) to build their knowledge and capacity to encourage long term energy efficiency among shire residents. This was essentially achieved through the housing of the Kiosks in the shire libraries and training staff how to provide assistance to members of the public in navigating the

Powersave website.

Purchases of software, home energy assessment training, energy efficient rewards and Energy Reduction Plans assisted to build the capacity of Australian energy efficiency technology and equipment company Steplight Pty Ltd.

11. Recommendations

It is recommended that a similar approach to the Powersave project be adapted for national delivery. The programme would go to tender for community organisations to deliver services across a specified area (Local Government Areas) over a 5 year period. Ideally a community organisation would deliver services across a number of LGA's to reduce the number of organisations delivering the service.

Organisations would have to demonstrate their;

- existing linkages with community organisations across the whole of the service area,
- proven capacity to deliver services to targeted cohorts (Aged, Indigenous, Cultural and Linguistically Diverse and unemployed), and
- demonstrated ability to meet contracted KPI's and targets.

The programme would require succesful tenderers to deliver in home energy assessments and provide ongoing advocacy and support to clients.Clients would recieve an energy action plan detailing what actions they can take within their household to reduce or maintain energy consumption while increasing in home comfort levels. Ongoing advocacy and support would be provided to clients to ensure the following;

- clients understand their energy retailers tax invoice and consumption;
- clients understand that they can shop around for the best deal and how to search for better energy rates;
- clients feel confident to change energy retailers, and
- clients are provided with advice on the various Government rebates that they may be eleigible for and how to apply for them.

Staff delivering the in home assessments would need to have formal accreditation to deliver these assessments and any other legislated requirements such as Australian National Criminal History Checks.

The programme would require targets (number of home energy assessments) for each service area to be achieved. To ensure transparency, third party verification surveys would be undertaken across a sample of clients in each service area to ensure that home energy assessments have been conducted and advocacy and support provided in line with the programme key performance indicators.

Appendix A

Inverell Times Article

Newspaper article, Inverell Times September 24, 2013

Opportunity to cut power costs

By Steve Green.

SEVERAL local councils and BEST Employment Ltd have been successful in obtaining funding to deliver an energy saving project across the New England/North West region of NSW.

Inverell, Gwydir and Glen Innes-Severn Shire councils have teamed up with BEST to initiate the Low Income Energy Efficiency program (LIEEP), which is funded by the Department of Energy, Resources and Tourism.

Under this program, the New England/North West Energy Efficiency Campaign will deliver community workshops, free home energy assessments, individualised energy reduction plans and provide access to energy saving information so that energy wise households are developed.

Inverell Shire Council manager of Corporate and Community Services, Stephen Golding, said the campaign is a unique opportunity for the councils to work with BEST.

"Families across our region are feeling the pinch when it comes to electricity prices and our campaign is aimed at reducing this pressure on families," Mr Golding said.

Kerry Byrne is the manager of the Library and Learning Centre at the Glen Innes-Severn Shire Council and thinks the community is struggling with environmental issues.

"I do believe this is going to be a wonderful help to all our communities and working together we can achieve a lot," Ms Byrne said.

Households eligible for participation in the program are those that are in receipt of aged and disability pensions, unemployment or study benefits or those identified as struggling to pay council rates.

The free service is available to residents in Inverell Shire, Gwydir Shire, Glen Innes Severn Shire, Tingha and Bundarra.

Energy kiosks will also be installed at Inverell, Glen Innes, Bingara shire libraries and at Warialda to provide energy efficiency information to the general public.

The kiosks will provide access to our website, household energy saving information, links to related websites and Government rebates.

For further information, please contact Home Energy Advisor, Robert Walters on 0418 731 378.

Appendix B

Powersave Newsletter

POWER SAVE

AUGUST 2014

Case Study

Jennifer attended a Powersave workshop and asked for a Home Energy Assessment to be completed by BEST's Home Energy Advisor, Rob Walters.

Rob noticed that the household had averaged **28.67 kilo Watt hour (kWh) per day** for the previous twelve months or **$8.89 per day.**

The Home Energy Assessment identified several areas that would reduce the electricity consumption and an Energy Reduction Plan was negotiated. **Jennifer implemented the following behavioural changes;**

- ⇒ One fridge was turned off
- ⇒ One freezer was turned off
- ⇒ Two remaining fridge/freezers operating temperatures were changed to the optimum setting
- ⇒ Outside lighting was reduced
- ⇒ Inside lighting was kept to a minimum
- ⇒ All power switches turned off when not in use
- ⇒ The kettle was only filled to the required amount needed
- ⇒ The microwave was used for cooking more than the electric stove.

Jennifer has now received three invoices from her energy retailer (9 months of consumption) which shows an average daily consumption of **13.71KWh per day.** This represents an approximate saving of **$1692** per year.

As a result of the Home Energy Assessment, Jennifer also negotiated an **11% discount** from her electricity retailer and applied for the NSW government Household Rebate which has delivered further savings.

Want more information!

Robert Walters 0418 731 378

Website www.powersave.net.au

Did you know that Inverell, Glen Innes, Bingara and Warialda libraries have a kiosk you can use to view our website!
Please ask the library staff for assistance.

Check us out on facebook as well.

POWERSAVE TIPS

- ⇒ Turn off all lights when not needed.
- ⇒ Only fill the kettle to the amount required.
- ⇒ Check the seals on your fridge/freezer.
- ⇒ Check the freezer temperature is between minus 12 and minus 15 degrees.
- ⇒ Use the microwave to cook/heat as it uses less electricity than the electric stove.

BEST EMPLOYMENT

Australian Government Department of Industry

GWYDIR

GLEN INNES SEVERN COUNCIL

Appendix C

Good news story Ms Margaret Davis

Ms Davis had always struggled to pay her electricity account. On a number of occasions Ms Davis had to approach St Vincents De Paul to apply for EAPA (Energy Accounts Payment Assistance) vouchers to help pay her electricity account.

BEST's Home Energy Advisor Rob Walters had previously conducted a workshop for St Vincents De Paul staff advising staff of our project and the potential benefits for their clients. As a result, St Vincents Financial Counselor arranged for Rob to conduct a Home Energy Assessment (HEA) at Ms Davis's residence.

Rob completed the HEA and an Energy Reduction Plan was drafted with a 10% reduction target set. MS Davis's implemented the following recommendations in the Energy Reduction Plan:

- Turned down her hot water temperature by 10 degrees Celsius
- Changed shower head to a AAA rated head
- Turned off appliances at the wall reducing standby consumption
- Sealed gaps around doors
- Put up external shading to reduce radiant heat from the sun
- Boiled the jug once a day and put remaining hot water in a thermos for later use
- Replaced heaters with more efficient models.

Ms Davis contacted Rob when she received her next energy account and advised that her average daily electricity consumption had reduced from 14.31kWh/day to 5.52 kWh/day (over a six month period). This represents an approximate saving of $994 per year.

In addition, the Home energy Assessment gave Ms Davis enough confidence to negotiate a further discount of 11% from her energy retailer and apply for a medical rebate.

Appendix D

Sample Energy Reduction Plan

Phone: 1800 660 660

Email: best@best.com.au

New England/North West Energy Efficiency Campaign

Energy Assessment and Action Plan

Address Here

March 2015

This activity received funding from the Department of Industry as part of the Low Income Energy Efficiency Program. 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.

The information provided I this report is based on data gathered for the purpose of recommending enery reduction measures. Assessment system and verification provided by Steplight Pty Ltd. Advice should be sought from qualified trade personnel before installing any equipment.

Name

Address Line 1

Address Line 2

Date

Dear <Name>,

Thank you for inviting us to complete an energy assessment of your home. We are pleased to provide you with a personalised Energy Action Plan which captures the key issues that were identified during your recent assessment.

This Action Plan includes a number of suggested actions that will help you to reduce your household's energy consumption. The benefits of using less energy are threefold:

Your home can become a more comfortable place to live.
You will save money on your utility bills.
Your household's impact on the environment will be reduced.

NEXT STEPS - Many of the actions recommended involve behaviour change (free of any cost) or are low cost, do-it-yourself projects.

Yours Sincerely,

Robert Walters

Home Energy Advisor

BEST Employment Ltd

Phone: 02 6721 3222

Email: Robert.Walters@best.com.au

1. Your energy usage

Energy consumption and rating

Your household energy consumption is presented below (based on bills provided). You can use this information to review your progress in the future.

	Your Household	Australian Average
Electricity	15.2 kWh/day	20 kWh/day
Gas or LPG	- MJ/day	45 MJ/day
Wood	99 MJ/day	20 MJ/day

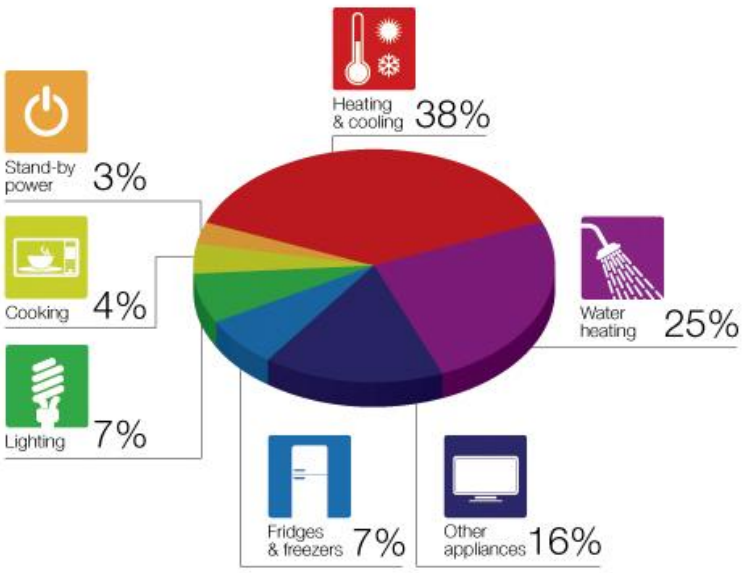
Your home achieved a NABERS rating of **1 Stars**

NABERS is a 0 to 5 star rating of household energy usage. The national average is 2.5 stars (see www.nabers.com.au)

Your energy reduction target is 13.7 kWh/day

Typical energy usage

Heating, cooling and hot water account for over half of the energy consumption in a typical home in Australia. This information can help you to prioritise which areas to focus on in your home (see section 3). Image source www.sa.gov.au



2. Actions already applied in your home

A number of factors are already contributing to reduced energy usage and costs in your home. These include:

- Cross ventilation used for cooling
- North facing windows for winter heating
- Occupants take short showers (less than 4 minutes)
- Refrigerator operated at 3 to 5 degrees
- Freezer operated around ---15 to ---12 degrees
- Clothes are washed in cold water
- Clothes dryer used infrequently

Further Information & Government Rebates

Rebates may be available for you to improve the energy or water efficiency of your home. For up-to-date information visit the following websites:

Information Guides & Rebates by State - www.livinggreener.gov.au

State Government - www.savepower.nsw.gov.au

3. Your energy reduction actions

A note to renters…

As a renter, some energy efficiency improvements are relatively easy to make (such as changing your behaviour or appliance settings). Other advice contained in this report may be harder to implement (such as insulation or hot water system changes). If relevant, we encourage you to pass this advice on to your land-lord.

Consider solar PV to supplement your electricity usage

Solar photovoltaic 'PV' panels convert sunlight directly into electricity. Solar systems are specified by their capacity in kilowatts (kW). For each 1kW of panels you will require about 8m2 of roof space and can expect to generate about 4kWh per day. Refer to page 3 to see how many kWh you currently use per day.

3.1 Heating & Cooling

Reduce air leakage around external doors and windows

15-25% of a typical dwelling's heat loss is through these seemingly insignificant gaps. Material called 'weather stripping' can be purchased from hardware stores to improve the seal made by all window and door joins. For the bottom of doors, use draught excluders or door snakes, particularly on external doors.

Reduce air leakage through extractor fan housings

Extractor fans in bathrooms and other locations can represent a large gap in the air tightness of your home. Products are now available to self-seal your exhaust fan when it is not in use. See www.draftstoppa.com.au for more information (available from hardware stores).

Seal your internal wall vents

Wall vents are unnecessary in most dwellings and should be sealed off to minimise heat loss and heat gain. Sealants will provide a neat and permanent job, but temporary measures using masking tape or similar will also work well. Your wall will still be ventilated because external vents will remain open. The sealing of internal wall vents is not recommended in rooms using un-flued gas heaters or wood fires.

Seal the gaps in construction

Gaps in construction such as between window frames and walls, around air conditioning systems, and between skirting boards and the floor, can all contribute to unwanted draughts. These should be permanently sealed to improve comfort inside your home.

Install under-floor insulation

10 to 20% of a dwelling's heat loss is through the floor. Insulation batts installed between the floor joists will significantly reduce this drain on winter heating. Under-floor insulation can be a DIY project or completed by a contractor. An 'R-rating' of 1.5 is recommended for under-floor insulation.

Install ceiling insulation

Around one third of heat loss and gain is through your ceiling and roof. Insulation batts act as a 'thermal blanket' for your home, keeping you warmer in winter and cooler in summer. They are readily available from hardware stores (check the distance between joists if installing yourself) or via insulation contractors. The effectiveness of insulation is based on its 'R rating'- higher values are better insulators. A minimum R3.5 is recommended for insulating your ceiling.

Consider installing wall insulation

Around 15-25% of heat loss in winter is through the walls. Wall insulation retrofits are now available but can be quite costly to implement. They typically involve an insulating foam being injected into the wall cavity.

Adjust your heating & cooling set point temperature

A one-degree temperature adjustment can save around 10% off your heating and/or cooling costs. Most people find a temperature of 24-26 degrees comfortable in summer and 18-20 degrees suitable in winter. Use a thermometer to check the temperature of your room and try using these settings on your heating and cooling systems.

Use fans in conjunction with the AC in summer

Circulating air with fans uses very little energy but significantly improves comfort. This is true even when the air conditioning is on. Using fans in occupied rooms when the air conditioning is on will enable you to raise the thermostat setting a degree or two compared to normal. This, in turn, will greatly reduce air conditioning energy consumption.

Choose an appropriate portable electric heater

Portable electric heaters may look innocent but can consume a significant amount of electricity if left on. The following actions will help reduce usage of these heaters:

- Upgrade to gas or reverse-cycle AC heating instead of electric if possible.
- Preference the use of lower wattage heaters such as electric blankets in bedrooms or radiant heaters in other areas.
- If the above is not possible, and an entire room must be heated, choose a unit with an inbuilt thermostat and set it around 18 to 20 degrees.

Optimise the efficiency of your wood heater

The energy efficiency of wood heaters varies greatly from less than 10% for open fires through to over 50% for 'airtight' slow combustion fires. Options to improve wood fire efficiency include:

- Choose high efficiency slow combustion units where possible.
- Use an in---built fan to distribute heat evenly throughout the room.
- Use 'heat shifters' (a ducted fan) to move heat to other rooms.

Consider solar air heating to supplement your heating systems

Solar air heaters look similar to solar hot water systems, but instead of heating water they heat air which is then ducted into your home. The most efficient options are those which use a solar PV panel to power the circulation fan.

Consider double glazing for windows

About 10-20% of heat loss in winter is the result of poorly insulated windows. Windows can be better insulated with double glazing and/or by ensuring they are well covered with closely hung curtains or blinds. Double glazing retro---fits are available in a range of options from low cost DIY plastic films, to more permanent perspex frames, through to full replacement of your windows.

Improve external shading

External shading is one of the most effective ways to keep your home cool in summer. Retractable awnings or blinds can be fitted to unshaded north and west facing windows to reduce unwanted heat in summer. Also consider natural alternatives such as planting deciduous trees or creepers on the western side of the building. These plants will naturally shade the building in summer while letting light through in winter.

Consider roof ventilation

Simple roof ventilation systems can significantly reduce heat gain through your roof in summer. 'Whirlybirds' and other ventilators exhaust the hot air from your roof space, reducing the heat load on your cooling systems. Expect to pay a few hundred dollars for product supply and installation.

Only use heating & cooling systems in occupied rooms

It's easy to leave heating or cooling systems on in unoccupied rooms, but this wastes energy for little benefit. Try to switch off systems when they are not in use or install improved zoning to minimise their usage in unoccupied rooms.

3.2 Hot Water

Is hot water really needed, or will cold do?

To minimise energy wastage, you should ask yourself this question each time you use hot water in the kitchen, laundry or bathroom. Simple steps to change your behaviour can make a huge difference.

Insulate your hot water pipe

You can minimise heat loss from pipes by purchasing 'pipe sleeve' insulation from your local hardware store (it's usually made from a black foam material). Just remember to note down the diameter of your pipe before you make a purchase. It is recommended that you insulate at least a metre or two along each pipe that exits the hot water system.

Install tap aerators and low flow showerheads

Tap aerators and low flow showerheads will reduce your water consumption and, in turn, your energy consumption. Tap aerators are a simple insert for your existing tap hardware that will reduce flow to 3 to 6 litres per minute. Modern low flow showerheads are designed to maximise water spray while minimising the flow rate. Water efficient showerheads use 6 to 9 litres per minute. Both

tap aerators and low flow showerheads can be purchased from hardware stores.

Upgrade your electric storage hot water to instant gas or solar

We recommend switching to instant gas or solar when it comes time to replace the system. Instant gas systems are relatively low cost and highly effective as they only heat the amount of hot water being used. Solar hot water systems will cost more but often have rebates available (see rebate information). Solar hot water systems will supply up to around 75% of your hot water needs for free from the sun.

3.3 Kitchen and Laundry

Keep an eye on your appliances

Simple appliance faults can cost you dearly; here are a few things to look out for in the kitchen and laundry:

- Fridges and freezes should have at least 5cm of ventilation space on all sides.
- Check fridge seals regularly and replace if necessary
- Check your water meter for undetected leaks in taps and fittings

3.4 Appliances & Lighting

Replace incandescent lights with compact fluorescent or LED

Energy efficient compact fluorescent or LED lights use 80% less energy and last up to 10 times longer than incandescent globes. These are now widely available --- including globes for dimmable fittings. Globes labelled as 'warm white' will give off the same colour light as the old lights. Each globe will save roughly $70 in electricity costs over their lifetime.

Consider replacing compact fluorescent with LED

Compact fluorescent (CFL) lights are already relatively energy efficient; however, new LED lighting can be even better. For example, an old 15 watt CFL can now be replaced with a 10 watt LED. LEDs have additional benefits such as instant on (no warm up time), they contain no mercury, and they last longer.

Minimise usage of outside lighting

Outdoor lighting can be a significant and unnecessary drain on your energy consumption. Replace globes with LED lamps where possible, or consider installing a solar powered motion sensor. Costs will vary depending on the extent of the upgrade required (and the need for

an electrician).

Reduce your standby power usage

Just one television running in standby mode (so you can use the remote) can cost up to $20 per year to operate. If you add up all the devices in your home, this usage can become significant (computers, DVD players, stereos, the microwave, etc). If you can't easily switch off at the wall, innovative power boards and remote controlled power outlets are now available which make it easier to turn off standby.

Switch off lights when you are not in the room

It is often misunderstood that switching a light off and then on again over a relatively short period uses more electricity than leaving it on. This is simply not true, even for the new energy efficient globes, so just switch them off when not in use.

Enable the energy saving features on computers

Most computers waste roughly half of their energy consumption while idling and in standby. The three most effective actions you can take to address this are to 1) switch them off when they're not in use, 2) flick the switch off at the wall to combat standby usage, and 3) set monitors to power---off in under 10 minutes.

Consider replacing desktop computers with laptops

Desktop computers consume about four times more electricity than laptops. So, when it comes to replacing your existing desktop computer, consider upgrading to a laptop instead.

Switch off appliances when on holiday

When you leave your home vacant many appliances continue to operate unnecessarily. When you are away consider switching off your hot water system and flicking off all those standby loads. On longer breaks consider emptying and switching off your fridge at the wall.

Use a wireless energy monitor to keep track of your usage

Wireless energy monitors provide a real---time display of total household electricity usage. They are

a great way to keep track of your consumption even after you have made the changes recommended in this report. In fact, research shows that having a wireless energy monitor in place can lead to electricity savings in the range of 5 to 15%.

Appendix E

Good news story Ms Irwin

Ms Helen Irwin receiving a Powersave reward from Mr Robert Walters

Ms Helen Irwin was referred to the Powersave program after attending the Inverell Saint Vincent De Paul branch to ask for financial assistance. Ms Irwin was concerned that her power was going to be disconnected as her electricity retailer had advised her that she was behind in her payments and would be disconnecting the power. Ms Irwin was on average using 36.33 kWh/day.

BEST's Home Energy Advisor Mr Robert Walters contacted Ms Irwin and arranged to conduct a Home Energy Assessment. During the assessment, Mr Walters assisted Ms Irwin with the following;

- Mr Walters identified that the Air Conditioner was not set correctly and that Ms Irwin was using it excessively;
- Identified a number of draughts that could be sealed with little costs that would make a big improvement to heating and cooling;
- Identified that the hot water temperature was very high and could be reduced;
- Tested an older freezer that was running at -30 Celsius and using excessive electricity; and
- Helped Ms Irwin negotiate with her electricity retailer to not cut the power.

An Energy Reduction Plan was implemented and as a result Ms Irwin managed to reduce her electricity consumption. Ms Irwin also changed electricity retailer to receive a better deal and also received the Life Support rebate.
Ms Irwin has now been able to reduce her average consumption over a 12 month period to just 18.75 kWh per day. This is an approximate saving of $1924 per year.

Appendix F

Powersave initial Data Schema

DATA COLLECTION FIELDS

#	*Field name*	*Field description*
1.	Trial name	Identifies the Local Government Area in the project to which the data relates
2.	Unique LIH identifier	Unique identifier for each household serviced.
3.	Trial approach	Project approach /engagement method
4.	Barriers being	List the types of energy efficiency
5.	Energy Efficiency Measure/Service	Type of measures or service undertaken:
6.	Date of Measure/Service	Date on which the service was completed.
7.	Current Estimated Energy costs	The estimated current annual energy cost indicated by the client
8.	Single Energy Source	Does the client only use one energy source? (excludes water)
9.	Energy/Resources Saving Devices	Current energy saving devices indicated by the client.
10.	Anticipated percentage saving of Measure/Service (per year)	The anticipated savings in percentage per year to be achieved through participation in this project

8.2 Household community base

#	*Field name*	*Field description*
11.	Gender of people in household	Gender of participant
12.	Number and age of people in household	Total number of individuals living in the household with the age of each individual
13.	Education status of people in household	Level of education
14.	Indigenous indicator	Are any individuals Indigenous or Torres strait islander
15.	Birthplace Indicator	Were the individuals born in Australia or
16.	Primary language spoken in the household?	Indicator of English or other language spoken at household
17.	Main source of household income What was your predominant employment status for the last 12 months?	Identify the main source of household income, e.g. pension/benefits, full time employment, part-time employment. Employment status indicator
18.	Income level of household (Annual)	Approximate level of annual household income
19.	Target group of household	Demographic
20.	No of weeks vacant	The number of weeks per year the house is unoccupied

#	*Field name*	*Field description*
21.	Past behaviour	Previous energy efficiency activities undertaken by the participant/household. If yes, specific activities should be recorded.
22.	Level of energy efficiency interest	Gauges the participant's level of interest in energy efficiency. How interested are you, in conserving energy in the home?
23.	Household comfort status	How comfortable do the householders feel? (heating/cooling/lighting/etc)
24.	Empowerment status	How empowered do the householders feel in relation their energy consumption?
25.	Finance control status	How in control of their finances do the householders feel?

26.	Behaviour change status	How much has the householder's behaviours changed over the last 2 years

8.3 Dwelling features

#	*Field name*	*Field description*
27.	State	The state/territory in which the project is taking place
28.	Climate zone	The climate zone in which the project is taking place, based on temperature and humidity (BOM 2003)
29.	Postcode	Postcode of the household.
30.	Dwelling status	Whether the home is owned outright, mortgaged, property is rented or occupied without payment
31.	Dwelling Structure	Type/structure of dwelling.
32.	Age of dwelling	The year the household was built.
33.	Wall construction	Major outside wall material
34.	Roofing construction	Major roofing material
35.	Number of stories	Number of stories in dwelling
36.	Number of bedrooms	Total number of bedrooms
37.	Number of bathrooms	Total number of bathrooms
38.	Number of living rooms	Total number of living rooms
39.	Size m2	Total area of the household in m2 (excludes garage and outdoor areas)
40.	Nationwide House Energy Rating Scheme (NatHERS) star rating or equivalent	NatHERS star rating of the household

#	*Field name*	*Field description*
41.	Insulation	Indicates if the house is the house insulated e.g. none, ceiling or wall and ceiling. Also indicates type of insulation
42.	Window type	Type of glass in most windows

43.	Window coverings	Type of window coverings on most windows
44.	Smart Meter	Household has a Smart meter installed
45.	PV	Household has a PV installed
46.	Modifications made to dwelling in last 12 months	Any changes or modifications made to dwelling in last 12 months.

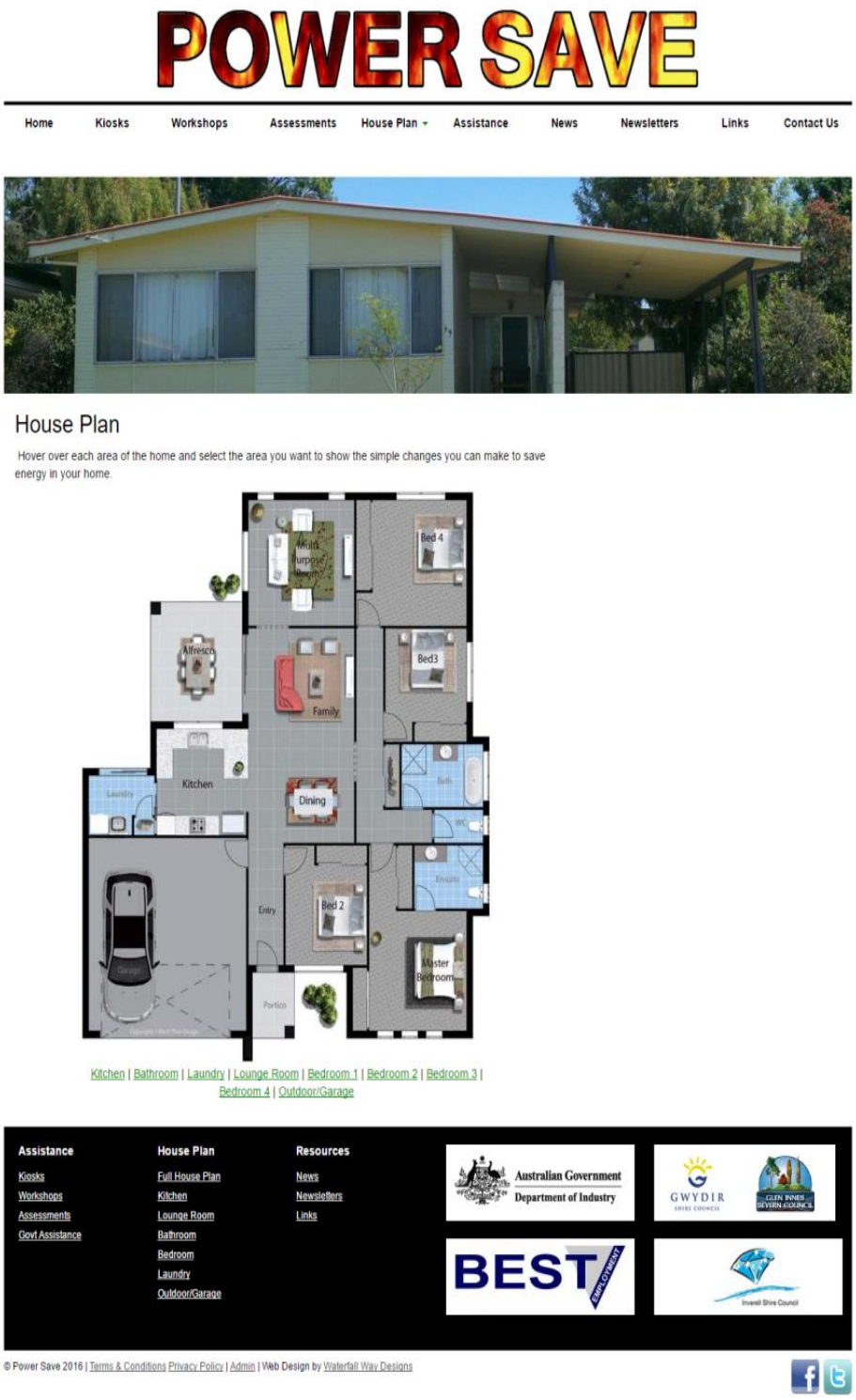
8.4 Energy characteristics

#	*Field name*	*Field description*
47.	Types of energy sources used within the household	Select the types of energy sources used within the household
48.	Tariff type	
49.	Heating	Type of space heating
50.	Cooling	Type of space cooling
51.	Water heating	Main method/fuel used for watering heating
52.	Lighting	Number and type of light globe used in household
53.	Lighting	Number and type of skylights
54.	Refrigeration	Type of refrigeration (and star rating, if available)
55.	Cooking - oven, stove, microwave	Type and method/fuel used for cooking e.g. oven, stove, microwave
56.	Computers	Number and type (and star rating, if available)
57.	Home entertainment appliances	Number and type of (and star rating, if available)
58.	Laundry appliances	Number and type and star rating, if available.
59.	Pool/Spa pumps	Number and type of pool or spa pumps

#	Field name	Field description
60.	Prior EE measure energy usage	Period/Quarterly energy usage in kWh for the period prior to the EE measure
61.	Post EE measure energy usage	Period/Quarterly energy usage in kWh for the period post the EE measure
62.	Do you now have a greater understanding of energy efficiency?	

Appendix G

Powersave website



Appendix H

Glen Innes Probus Club thank you letter

PROBUS CLUB OF GLEN SEVERN INC.

PO Box 686
GLEN INNES
NSW 2370

Secretary: Frances Cheshire
67323747

10 July, 2014

Mr. R. Walters
Best Employment
PO Box 175
INVERELL...N.S.W. 2360

Dear Rob

On behalf of the members of the Probus Club of Glen Severn Inc. I wish to thank you most sincerely for talking to our group on Power Save. Your talk was most interesting and all members went home more informed on how to save money on their electricity accounts.

One again thank you for giving up your time to speak to our Club.

Yours faithfully

Christine Dempsey
A/Secretary

Appendix I

Good news story Mr Andrews

Mr Lyle Andrews

Lyle is a visually impaired client of the Benevolent society. Lyle was concerned by his high electricity consumption and asked the Benevolent Society for assistance. BEST's Home Energy Advisor Mr Rob Walters had previously explained the New England North West Energy Efficiency Campaign (Powersave) to the Benevolent Society and consequently they asked Rob for his assistance.

Rob conducted a Home Energy Assessment with Lyle and a case worker from the Benevolent Society. Together they identified that the average daily consumption was 20KWh/day. An Energy Reduction Plan was implemented and as a result Lyle undertook the following actions;

- Hot water temperature was reduced
- Hot water was put onto an off peak tariff to save money
- All lights were checked and turned off when not in us.
- An older fridge was identified as having a high power consumption and was replaced with a more efficient fridge
- Freezer temperature was changed from -28 to -15 degrees Celsius.

Lyle's energy consumption has now reduced to 15.57KWh/day (over 9 months) which represents an annual saving of $501. As a result of the Home Energy Assessment, the case worker helped Lyle negotiate a 10% discount from his electricity supplier and applied for the NSW Government Household Rebate which has increased the savings to Lyle.

Appendix J

Good news story Mr Parker

Mr Colin Parker and BESTs Home Energy Advisor Mr Robert Walters

Colin is a new resident of an Aged Care facility living in a unit. Colin had received two invoices from his electricity retailer (averaging 14.56 KWh/day) which he thought was too high. Colin approached the management at the Aged Care Facility to see if they could offer any assistance. Home Energy Advisor Robert Walters had previously conducted a workshop for staff at the Aged Care facility and consequently they contacted Robert to see if he could assist.

Robert met with Colin at his unit and conducted a home energy audit. During the audit Robert noticed that the NMI on Colins invoice was different to the NMI on his meter. Robert assisted Colin in contacting his electricity retailer and notifying them of the difference in NMI's. The electricity retailer admitted that they had entered the wrong NMI and that Colin was receiving another customers bill.

The incorrect account was cancelled and a refund for the previous two invoices refunded. Colin with Roberts assistance then set up a new account with the NMI owner and a new invoice issued for the previous electricity consumption. As a result, the average daily consumption is now 5.84KWh/day (over a six month period) which represents a saving of $985.

As a result of the Home Energy Assessment, Colin also negotiated an 11% discount with his electricity retailer and applied for the NSW Government Household Rebate which has delivered additional savings.

Appendix K

Good news story Ms Hamel

Ms Jennifer Hamel

Ms Jennifer Hamel attended a Powersave workshop at the Glen Innes Probus club. At the time Jennifer did not ask for to join the Powersave programme. However, soon after the workshop, Jennifer received a very high electricity bill which showed very high winter consumption and consequently asked to join the Powersave program.

BEST's Home energy Advisor Rob Walters visited Jennifer at home and conducted a thorough assessment of Jennifer's electricity consumption habits. Rob identified that Jennifer had been running an electric heater 24 hours a day as a family member had told her it was cheaper to run this way. An Energy Reduction Plan was negotiated which advised Jennifer to Block off draughts around the home, run the heater only when required and also identified cheaper forms of home heating.

Jennifer blocked off the gaps and only used the heater when required, as a result Jennifer's electricity consumption reduced from an average of 33.11 kWh a day to 7.83 KwH a day over a 12 month period. This is an average reduction of 25.28 kWh per day which represents a saving of approximately $2866 a year. Jennifer was also able to negotiate a 10% discount with the retailer after gaining confidence from the workshop and negotiated a 16% discount with her retailer 12 months later.