

8 Appendices

Appendix 1 Privacy Notice

1. **Background**

- A. This privacy notice has been developed for the Energy Efficiency Program (the Program) which is funded by the Commonwealth and delivered by organisations that have been successful in obtaining funding for their project from the Commonwealth. The objectives of the Program are:
- a. to trial and evaluate a number of different approaches in various locations that assist low income households to be more energy efficient;
 - b. to capture and analyse data and information to inform future energy efficiency policy and program approaches.
- B. Further details about the Program can be obtained by contacting the Department of Industry, Innovation & Science (the Department) or visiting the Department's website: www.industry.gov.au or by contacting the South East Councils Climate Change Alliance (SECCCA). The contact details for the Department and SECCCA are listed at the end of this notice.

2. **Why is my personal information being collected?**

- A. I,<insert name of individual> of
.....<insert address of individual>,
understand that my personal information is being collected by council staff and SECCCA on behalf of the Department for the purposes and functions of the Program.
- B. For the purposes of paragraph 2(A) above, I understand that I have the option of dealing with the Department anonymously or through the use of a pseudonym unless:
- a. the Department is required or authorised by law or a court/tribunal order to only deal with individuals who have identified themselves; or
 - b. it is impracticable for the Department to deal with un-identified individuals.

I understand that if I choose to use a pseudonym or wish to remain anonymous then this may affect my eligibility to participate in the Program.

3. **What personal information is being collected?**

- A. Personal information collected by council staff and SECCCA on behalf of the Department will consist of the following:
- a. Household physical characteristics such as:
 - size;
 - building type;
 - material; and

- roof type and material;
- b. Information relating to your:
 - hot water system;
 - space heating; and
 - cooling system;
 - c. Lighting used within your household and property;
 - d. Appliances used within your household and property;
 - e. Income level of your household;
 - f. Details of people that reside at your household;
 - g. Energy sources including billing details for the following:
 - i. electricity;
 - ii. gas; and
 - iii. other sources;
 - h. Energy use behaviour data from your household.

4. Who will have access to my personal information?

- A. I understand that my personal information will be shared for the purposes of the Program with:
 - a. the Department;
 - b. SECCCA, its project partners and contractors; and
 - c. *Commonwealth Scientific and Industrial Research Organisation (CSIRO)*
- B. In addition, my personal information may be made available to other organisations if it will prevent or lessen a serious threat to the life, health or safety of any individual; to the public health or safety; if disclosure is required or authorised by law; or if the disclosure is reasonably necessary for law enforcement related activities.

5. How will my personal information be used?

- A. I understand that my personal information will be used for the Program in the following way:
 - a. compiling information and preparing reports to be disclosed to the Department to deliver the Program according to the Program objectives;
 - b. to enable the Department to evaluate the outcomes of the Program;
 - c. to enable CSIRO to conduct an analysis of the data collected and report on the results. This report will be based on aggregate data and personal information will not be identifiable;
 - d. for the purpose of auditing compliance and safety and resolving relevant complaints;
 - e. as authorised or required by or under law; and

- f. for reporting publicly on the findings and performance of the Program. Published information, such as reports, will be based on aggregate data and personal information will not be identifiable.

6. How will my personal information be protected?

- A. I understand that once the Department receives my personal information:
 - a. my personal information will be maintained in a secure environment and will not be released by the Department unless the law permits it or I consent to the disclosure;
 - b. that the Department will take reasonable steps to ensure that my personal information is protected from misuse and loss and from unauthorised access, modification or disclosure. I understand that my personal information will be stored in a safe and secure location; and
 - c. my personal information may be held in either electronic or hard copy form and will be destroyed or de-identified when it is no longer needed in accordance with the requirements of the *Archives Act 1983* (Cth).
- B. I understand that the Department cannot provide any assurances regarding the security of any information that I send to the Department via the internet, including any guarantees that my personal information will not be intercepted whilst being transmitted over the internet. I understand that if I have any concerns regarding the transmission of personal information that I may provide my personal information to the Department via other means (e.g. mail, telephone and facsimile).

7. What happens if I refuse to provide my personal information for the Program?

- A. I understand that I do not have to provide some or all of the personal information that is being requested. However, if I refuse to provide some or all of the personal information being requested, this may affect my eligibility to participate in the Program.

8. Can I change my mind about providing my personal information or update my personal information?

- A. I understand that once my personal information has been collected, I can request:
 - a. access to my personal information; and
 - b. corrections, deletions or additions to my personal information.

9. Authority from the other household members

- A. I have authority to provide personal information on behalf of the other members of my household who are listed below:

<insert details of other household members>

1....., 2.....

3....., 4.....

10. Who to contact for further information about the Program, your personal information or to lodge a privacy complaint?

Contact person’s name: Adam Shalekoff
Address: SECCCA. C/O City of Casey, PO Box 1000, Narre Warren VIC 3805
Phone number: 03 9792 7042
Email address: info@seccca.org.au

Contact Details in the Department:

Contact person’s name: Program Manager, Low Income Energy Efficiency Program
Address: GPO Box 1564, Canberra ACT 2601
Phone number: 1800 609 507
Email address: lieep@industry.gov.au

Privacy Officer
Department of Industry, Innovation & Science
GPO Box 9839, Canberra ACT 2601
Email: privacy@industry.gov.au

11. Your consent


- A. I consent to the collection, use and disclosure of my personal information as described in this privacy notice.

Name of individual: _____

Signature/s: _____

Date: _____

Appendix 2 Introductory letter to target HACC clients



COUNCIL LOGO

<Date>

Re: Energy Saver Study

Dear Householder,

You are invited to apply to be part of the *Energy Saver Study* which is funded by the Australian Government and being delivered by <XX> City Council and the South East Councils Climate Change Alliance (SECCCA).

If you apply and are selected to take part in the *Energy Saver Study*, you will receive:

- at least \$500 of energy saving home improvements
- a home energy audit and education
- gas and electricity monitoring
- assistance getting landlord approval for improvements (rented homes only).

You are receiving this invitation because you are a Home and Community Care client of <insert name> Council. The study aims to find out how councils can help residents to reduce gas and electricity bills and to explore the relationship between residential energy efficiency and health.

Included with this letter is some information about the study, an *Expression of Interest form*, a *Privacy Notice* and a reply paid envelope. If you want to apply to join the study, please fill in the forms and post them in the enclosed *Reply Paid* envelope or hand them to <HACC worker>. If you need help to apply, please call <HACC worker> on <insert phone number>.

Households will be selected so that participants are spread across the <Council name> area. If your home is selected to participate, you will be contacted by council staff, given more information about the study and asked to sign an agreement.

Thank you for considering participating in this study. If you have any questions please call <HACC worker> on <insert phone number>.

Regards,


<Council, Officer Name, Position>



Australian Government
Department of Industry

This Activity received funding from the Department of Industry as part of the Low Carbon Communities Program

Appendix 3 Energy Saver Study flyer provided to clients at first visit



Energy Saver Study

↓

Do you wish your energy bills were lower?


↓

Would you love your home to be warmer in winter and cooler in summer?

↓

Is your house too draughty?

We can help you.
Apply now to see if you qualify.



www.seccca.org.au

WHAT WILL HOUSEHOLDERS GET IF THEY PARTICIPATE IN THE ENERGY SAVER STUDY?

1. An Energy Upgrade/Support Pack worth at least \$500
2. Gas and electricity monitoring for 2 years and the option to retain
3. An energy efficiency assessment of your home - completed by a qualified professional
4. Tailored energy efficiency information and training
5. Assist councils to better deliver energy efficiency services to the community

Householders will receive energy efficiency packages at different times during the two year study period.

All works will be carried out by fully qualified, accredited and insured professionals.


To see if you qualify, complete the Energy Saver Study 'Expression of Interest' Form and 'Privacy Notice' and return them to council.

From the Expressions of Interest across the region 320 eligible households will be randomly selected to participate in the study.

For more information contact

info@energysaverstudy.org.au
or contact your local council.

This Activity received funding from the Department of Industry as part of the Low Carbon Communities Program and is supported by Bass Coast, Baw Baw, Gippsland, Corang, Casey, Kingdon and Mornington Peninsula Councils.



Appendix 4: Draught Testing & Sealing Process

Draught Testing

Step One: Setting up the Home

1. All the internal doors will be opened
2. All external doors and windows will be closed.
3. The home will be checked for any un-flued gas heaters. If there are any, we can turn them off and go ahead with the draught testing, but we will not go ahead with any draught sealing.
4. On evaporative coolers, we will install a winter cover or close the damper if it is available.
5. Any vents on wood combustion stoves/heaters will be closed. We will make sure the fire is out. If ash bed is warm, we cannot proceed with the draught test.
6. Any clothes dryers, range hoods and/or exhaust fans will be turned off.



Step Two: Setting up the Draught Testing Fan and Testing for Draughts

1. A temporary frame and fan will be installed to an external door.
2. The fan will be started and we will make sure all internal doors are open, external doors and windows are shut, any fireplaces are undisturbed and the fan is secure in the door.



3. We will test the home for draughts at a range of air pressures.



Retrofitting: Draught Sealing (Fixing Leaks)

Step Three: Locating Leaks

1. The technician will move through the property and look for obvious leakage points.
2. The technician may use a smoke pen to locate points where air is entering the home. Only very small quantities of smoke are emitted from the pen and its use is kept to a minimum.



3. The technician will use their experience to feel airflow areas



Step Four: Fixing the Leaks

1. Common air leakage areas

- Electrical and plumbing penetrations
- Switches and power points
- Doors and windows (fixed and operable)
- Architraves around doors and windows
- Ventilation vents in plaster
- Open fireplace without damper
- Exhaust fans in bathrooms & laundry
- Exhaust fans in kitchen
- Recessed down lights
- Skylights
- Evaporative cooling grills
- Ducted heating grills

2. Technician will work using the appropriate sealing system to reduce draughts.

Common non- structural methods may involve:



Caulking



Window Weather Strips



Fire Rated Lighting Covers



Exhaust Fan covers



Sealing plumbing holes



Door draught stoppers

3. The technician retests the home with the fan.
4. The technician repeats the process until an acceptable result is achieved.

For further information:

www.yourenergysavings.gov.au

www.sustainability.vic.gov.au

www.airbarrierdraftproofing.com.au

This Activity received funding from the Department of Industry, Innovation & Science.



Australian Government
**Department of Industry,
Innovation and Science**

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.

For more information contact SECCCA:

Ph: 03 9705 5129

enquiries@seccca.org.au

www.seccca.org.au

Appendix 5: Householder pre-intervention survey

Question ID	Question	Answer
1	Enter Home Details	
	<i>House ID Number:</i>	
2	Home Owner Intro - provide information about the survey to the householder	
3	Electrical energy use per year (bills)?	\$500-\$1500 \$1500-\$2500 \$2500-\$3500 >\$3500
4	If Mains Gas User: On average, how much does your household spend on mains gas per year?	<\$300 \$300-\$1000 \$1000-\$1600 >\$1600 Do not use mains gas
5	How are you managing the cost of your energy bills?	With difficulty Can just get by No problems Don't think about it
6	Does the householder need help in paying their energy bills?	Yes Sometimes No
7	How empowered do the householders feel in relation to their energy consumption?	Very empowered Empowered Neutral Rarely empowered Not empowered
8	How in control of their finances do the householders feel?	In control Sometimes in control Neutral Rarely in control Not in control
9	Have you undertaken any actions in the last 3 years to reduce the amount of electricity, gas or water you use?	Turn lights off when not required More efficient use of hot water e.g. shorter showers Effective use of curtains or blinds Turn appliances off at power points when not in use Installing electrical switch off devices Take into account energy efficiency rating when purchasing appliances Not having air conditioner so cold in summer or the heater so hot in winter Washing clothes in cold water Closing off areas that don't need to be cooled in summer/heated in

		<p>winter</p> <p>Using fans instead of an air conditioner</p> <p>Only putting on washing machine or dishwasher with a full load</p> <p>Shutting blinds/curtains during the day in summer to reduce heat getting into the home</p> <p>Installed insulation, installed draught stoppers</p> <p>Other (please specify)</p> <p>None</p>
10	How interested are you in conserving energy in your home?	<p>Very interested</p> <p>Interested</p> <p>Neutral</p> <p>Rarely interested</p> <p>Not interested</p>
11	Think of a cold day in winter. How do you keep warm in your home?	<p>Central heating</p> <p>Gas heater</p> <p>Electric heater</p> <p>Open fire</p> <p>Slow combustion stove</p> <p>Mixture of appliances</p> <p>Put on jumper/appropriate clothing</p> <p>Other - pls specify</p>
12	If central heating or portable heaters, what rooms do you heat?	<p>All living and sleeping rooms (excl. Bath/WC/L'dry/Garage)</p> <p>Living rooms</p> <p>Bedrooms</p> <p>Bathroom(s)</p> <p>Toilet</p> <p>Kitchen</p> <p>Other - pls specify</p> <p>None/NA</p>
13	When do you use your heaters?	<p>All day</p> <p>Night time only</p> <p>Day time only</p> <p>When I'm in the room</p> <p>When it is cold</p> <p>Other - pls specify</p>
14	What temperature do you like your heated rooms to be at during a cold day?	<p>Very hot/toasty</p> <p>Hot warm</p> <p>Pleasant just warm enough</p> <p>Take the chill off</p> <p>No heating</p>
15	In winter, in general, do you feel that you are able to heat your home adequately?	<p>Yes</p> <p>Sometimes</p> <p>No</p>
16	If No, Why?	<p>Home difficult to heat</p> <p>Cannot afford it</p> <p>Both</p> <p>Other - pls specify</p>

17	To reduce energy the householder is doing? (Select all that apply)	Temperature low and monitored Heating only when room occupied Zoning their house Closing doors to non-heated rooms Wear/put on warm clothes Keep house doors and windows closed Not using appliances Cooking using oven None/Very little
18	Think of a hot summer's day. How do you keep your house at a comfortable temperature?	Air Conditioner Fans Close blinds/curtains Shut off rooms Ventilate before/after a hot day Other - pls specify None
19	If air conditioner - what rooms do you cool?	All rooms Living rooms Bedrooms Other - pls specify
20	How hot in degrees Celsius does it have to be inside before you turn on your air conditioner?	25 30 35 40 40+ Don't Know
21	How long do you leave your air conditioner on?	Whenever it is hot All day Night time only Day time only A few hours at the end of the day Other (temporarily - just to cool down) (please specify)
22	What temperature do you like your rooms to be at during a hot day?	As cold as possible (18 degrees) Cold (20 degrees) Moderate (22-24 degrees) Drop the temperature a bit (≥ 26 degrees) No cooling
23	In summer, in general, do you feel that you are able to cool your home adequately?	Yes No
24	If no, why?	Home difficult to cool Cannot afford it Both Other - pls specify
25	To reduce energy they are doing:	Blinds closed Doors and windows closed Closing doors to rooms not cooled Air conditioner off/not used Minimal use of air conditioner Fans

		<p>External blinds used</p> <p>Avoid cooking inside the house</p> <p>Leave the house on hot days</p> <p>Ventilate the house in the cool hours</p> <p>None</p>
26	How comfortable is your home? (heating/cooling/lighting etc.)	<p>Very comfortable</p> <p>Comfortable</p> <p>Neutral</p> <p>Rarely comfortable</p> <p>Not comfortable</p>
27	Do you use a dishwasher? If so, how often do you use it?	<p>Multiple times each day</p> <p>Once a day</p> <p>Most days</p> <p>Once a week</p> <p>A few times a month</p> <p>Never</p> <p>Don't have one</p>
28	Do you use a clothes dryer? If so, how often do you use it?	<p>Multiple times each day</p> <p>Once a day</p> <p>Most days</p> <p>Once a week</p> <p>A few times a month</p> <p>Once a month</p> <p>Never</p> <p>Don't have one</p>
29	Do you have a washing machine? If so, how often do you use it?	<p>1-2 times per week</p> <p>3-4 times per week</p> <p>5-6 times per week</p> <p>7-8 times per week</p> <p>9 + times per week</p> <p>Do not have a washing machine</p>
30	If you have a washing machine, what water temperature do you use?	<p>Hot</p> <p>Warm</p> <p>Cold</p>
31	To reduce energy they are doing? (Select all that apply)	<p>Turning off appliance when not in use</p> <p>Drying washing outside/minimal use of dryer</p> <p>Using cold water washing cycle</p> <p>Don't use a dishwasher/only occasional</p> <p>Have reduced the number of fridges they use</p> <p>Using a fan to assist other cooling/heating appliances</p> <p>Other - please specify</p>
32		
33	Please rate how strongly you agree or disagree with the following statements: Energy Efficiency is too much hassle.	

34	Energy efficiency means I have to live less comfortably.	
35	My quality of life will decrease when I reduce my energy use.	
36	Energy efficiency will restrict my freedom.	
37	Energy efficiency is not very enjoyable.	
38	Equipment Check: do you have all equipment?	

Appendix 6: Householder post-intervention survey

Question ID	Question	Answer
1	House ID number	
2	Household address	
3	Date of Survey	
4	What group is this household in?	Group A Group B Group C Control Group
5	Explain to the homeowner that the survey consists of two sets of questions. 1. revisits questions that were asked on the pre-survey to see if any changes have occurred over the time of the project. 2. explores their views of their involvement in the project.	
6	Ask the homeowner if they mind if the last part of the survey is recorded so we can record the responses in their own words. If the participant is not comfortable then please take notes of this part of the interview.	
7	How are you managing the cost of your energy bills?	With difficulty Can just get by No problems Don't think about it
8	Does the householder need help in paying their energy bills?	Yes Sometimes No
9	How empowered do the householders feel in relation to their energy consumption?	Very empowered Empowered Neutral Rarely empowered Not empowered
10	How in control of their finances do the householders feel?	In control Sometimes in control Neutral Rarely in control Not in control
11	Have you undertaken any actions in the last 3 years to reduce the amount of electricity, gas or water	Turn lights off when not required More efficient use of hot water e.g. shorter showers Effective use of curtains or blinds

	you use?	<p>Turn appliances off at power points when not in use</p> <p>Installing electrical switch off devices</p> <p>Take into account energy efficiency rating when purchasing appliances</p> <p>Not having air conditioner so cold in summer or the heater so hot in winter</p> <p>Washing clothes in cold water</p> <p>Closing off areas that don't need to be cooled in summer/heated in winter</p> <p>Using fans instead of an air conditioner</p> <p>Only putting on washing machine or dishwasher with a full load</p> <p>Shutting blinds/curtains during the day in summer to reduce heat getting into the home</p> <p>Installed insulation, installed draught stoppers</p> <p>Other - doing physical activity every day</p> <p>Other - switch energy retailer</p> <p>Other (please specify)</p> <p>None</p>
12	How interested are you in conserving energy in your home?	<p>Very interested</p> <p>Interested</p> <p>Neutral</p> <p>Rarely interested</p> <p>Not interested</p>
13	Think of a cold day in winter. How do you keep warm in your home?	<p>Central heating</p> <p>Gas heater</p> <p>Electric heater</p> <p>Open fire</p> <p>Slow combustion stove</p> <p>Mixture of appliances</p> <p>Put on jumper/appropriate clothing</p> <p>Other - electric blanket</p> <p>Other - pls specify</p>
14	What rooms do you heat?	<p>All living and sleeping rooms (excl. Bath/WC/L'dry/Garage)</p> <p>Living rooms</p> <p>Bedrooms</p> <p>Bathroom(s)</p> <p>Toilet</p> <p>Kitchen</p> <p>Other - pls specify</p> <p>None/NA</p>
15	When do you use your heaters?	<p>All day</p> <p>Night time only</p> <p>Day time only</p>

		When I'm in the room When it is cold Other - For a few hours when it is cold Other - pls specify
16	What temperature do you like your heated rooms to be at during a cold day?	Very hot/toasty Hot warm Pleasant just warm enough Take the chill off No heating
17	At what temperature do you set your heater?	Don't know 18-20C 21-22C 23-25C 26+
18	In winter, in general, do you feel that you are able to heat your home adequately?	Yes Sometimes No
19	If No, Why?	Home difficult to heat Cannot afford it Both Other - pls specify
20	To reduce energy the householder is doing? (Select all that apply)	Temperature low and monitored Heating only when room occupied Zoning their house Closing doors to non-heated rooms Wear/put on warm clothes Keep house doors and windows closed Not using appliances Cooking using oven None/Very little
21	Thinking of next summer. How would you keep your house at a comfortable temperature?	Air Conditioner Fans Close blinds/curtains Shut off rooms Ventilate before/after a hot day Other - pls specify None
22	If air conditioner - what rooms would you cool?	All rooms Living rooms Bedrooms Living and bedrooms only Other - pls specify
23	How hot in degrees Celsius would it have to be inside before you turn on your air conditioner?	25 30 35 40 40+ Don't Know
24	How long would you leave your air	Whenever it is hot All day

	conditioner on?	Night time only Day time only A few hours at the end of the day Other (temporarily - just to cool down) (please specify)
25	What temperature do you like your rooms to be at during a hot day?	As cold as possible (18 degrees) Cold (20 degrees) Moderate (22-24 degrees) Drop the temperature a bit (>=26 degrees) No cooling
26	In the coming summer, in general, do you feel that you would be able to cool your home adequately?	Yes No
27	If no, why?	Home difficult to cool Cannot afford it Both Other - To save money Other - pls specify
28	To reduce cooling energy they are planning to:	Blinds closed Doors and windows closed Closing doors to rooms not cooled Air conditioner off/not used Minimal use of air conditioner Fans External blinds used Avoid cooking inside the house Leave the house on hot days Ventilate the house in the cool hours None
29	How comfortable is your home? (heating/cooling/lighting etc.)	Very comfortable Comfortable Neutral Rarely comfortable Not comfortable
30	Do you use a dishwasher? If so, how often do you use it?	Multiple times each day Once a day Most days Once a week A few times a month A few times a year Never Don't have one
31	Do you use a clothes dryer? If so, how often do you use it?	Multiple times each day Once a day Most days Once a week A few times a month Once a month Only during cold, wet weather Never

		Don't have one
32	Do you have a washing machine? If so, how often do you use it?	1-2 times per week 3-4 times per week 5-6 times per week 7-8 times per week 9 + times per week Do not have a washing machine
33	If you have a washing machine, what water temperature do you use?	Hot Warm Cold
34	To reduce energy they are doing? (Select all that apply)	Turning off appliance when not in use Drying washing outside/minimal use of dryer Using cold water washing cycle Don't use a dishwasher/only occasional Have reduced the number of fridges they use Using a fan to assist other cooling/heating appliances Other - Use pedestal lamps instead of whole room lighting Other - please specify
35	ELO to remind householder by outlining the retrofits that have occurred. You were randomly selected to be part of a retrofit group in the study which involved a number of home improvements these included...	
36	Did these home improvements meet your expectation?	Yes No Unsure
37	Over all, how useful were these changes in improving the comfort of your home? (scale from 1 to 5)	
38	More specifically, rate the impact of the following home improvements on the comfort of your home (only ask the relevant retrofits)	Not Applicable Useless Not Useful No change Useful Very Useful
	<i>Insulation</i>	
	<i>Draught Sealing</i>	
	<i>Shade</i>	

	<i>Lighting</i>	
	<i>Heaters and Coolers</i>	
	<i>Appliances (Incl. TV)</i>	
	<i>Hot water service replacement</i>	
	<i>Other - please describe</i>	
39	Please tell us more about the other improvements.	
40	Study Groups B and C - Behavioural change ELO to remind householder what was involved in the energy action plan.	
41	Think about the different visits from me and the activities I conducted with you: How would you rate the experiences you had with the energy action program?	
42	How useful was the energy action program in helping you reduce the amount of energy you use? (this group will be investigated in greater depth later in the project)	
43	If a home improvement program was provided in a similar way, through the home and community care area of the council, would you recommend it to other householders?	Yes No Unsure
44	Why? (expand on response q42)	Trust the council Trust home care service I liked the ELO visits/trusted them People need help to stay in their own homes Cheaper energy bills It is a waste of time Too intrusive

		See no benefits Other - please specify
45	As a result of being in the Energy Saver Study, did you find out anything new about saving energy?	Yes No Unsure
46	On a scale from 1-5 how would you rate your improved understanding of saving energy	
47	Have you completed any home improvements as a direct result of participating in the project that save energy, but were not funded by the project?	Yes No
48	What improvements did you make?	Insulation Draught sealing Shade Lighting Heaters and coolers Appliances (inc. TV) Hot water service Other - please specify
49	You mentioned earlier in the survey what you have done around the house to save energy. Did you adopt any new energy saving practices around the house as a result of participating in this study?	Yes No Unsure
50	How many new energy saving practices did you adopt?	We didn't adopt any new practices We adopted one new practice We adopted two new practices We adopted three new practices We adopted four or more new

		practices
51	What were they?	<p>Indoor temperature management (use of thermometer, heater type [fixed/portable], time of heater/cooler use, wearing suitable clothes, windows/doors open/closed, shade, use of blankets etc)</p> <p>Draught sealing (seal doors, wall vents, holes in walls, fixed louver windows etc)</p> <p>Water (only boil what you will use, clothes wash full load/in cold, short showers, cold rinse dishes)</p> <p>Fridges (1 only, no hot food, defrosting, seal)</p> <p>Lighting (when on/off, zone/pedestal lights)</p> <p>Appliances (buying more efficient, switches off, standby)</p> <p>Improving energy bills and retailers</p> <p>Clothes drying on wash line</p> <p>Other - Please specify</p>
52	<p>Which new practice was most important to you</p> <p>1. If the householder chose to describe a retrofit. Ask: did you change anything as a result of this home improvement? If so, what?</p> <p>2. Why is this change important to you? 3. What do you think influenced you to make that change 4. If I can just ask you to recall making that change and can you tell me your story in your own words of how this came about? Use prompting questions below if</p>	

	<p>not covered: Was this personally challenging for you? If YES ask - How did you get around it? If NO ask - Why was it so easy? Had you considered doing this before?</p> <p>Did the household retrofits influence your decision to do this?</p> <p>Who did you chat to about this?</p> <p>What did they say? 5. How did you manage to keep doing it? 6. What results or changes have you seen specifically from doing this?</p> <p>7. Did anyone you spoke to also have a go?</p>	
53	Was there a story of “significant change”?	<p>Yes</p> <p>Partial</p> <p>No</p>

Appendix 7 Questions used to frame the local council focus groups

Questions	Possible answers
1. The project in your Council Area	
a. What difficulties needed to be overcome to establish and implement the project in your council?	
b. Were they overcome?	
c. Was there anything unique in the way the project was established and conducted in your council?	
2. In your view how well was the project organised and conducted?	Poorly – ok – well – very well
Why	
3. How well were the activities of the project communicated to your council or organisation?	Poorly – ok – well – very well
Why	
4. Was it worthwhile for your council (or organisation) to participate in this project?	No – Unsure - Yes
Why?	
5. Benefits	
What benefits (for the council) can you see accruing from participating in this project?	
6. Barriers	
What difficulties needed to be overcome to implement the program and work successfully with clients?	
7. Flaws	
What reservations do you have about this project?	
8. Futures	
What can be taken from this project that would be useful to councils (your own and others)?	
9. Learnings	
What have you learnt from participating in this project?	
10. Any other thoughts or comments you would like to make about the project?	

Appendix 8: EAP task list

Detail of tasks for Energy Liaison Officers to implement EAP

Action	Tasks
Preparation to Visit 1	<ol style="list-style-type: none"> 1. Review householders energy use, household survey and audit data. 2. Book visit with householder including preferred cake type/dietary preferences. 3. Brief HACC staff about the Energy Saver Study, why it is important, then encourage them to say to householders “Well done for doing the Energy Saver Study. Good on you. How are you going with the actions?”
Visit 1	<ol style="list-style-type: none"> 1. Identify householders, dreams motivations, drivers (See tools) 2. Identify Energy Efficiency actions to assist householder’s progress to identified motivations (refer to Top 15 Actions List) 3. Associate personal driver to energy efficiency action 4. Provide householders with tools to list pledged action on fridge. 5. Help householder to develop a <i>Pledge</i> (a single action pledge) 6. If householder is ready for greater than three actions, then deliver <i>Household Action Plan</i> including house plan. (See visit 2 below) 7. Arrange next contact i.e. Visit 2/ Contact 1 8. Identify preferred contact method (phone, email, text?) and frequency of contacts until next visit
Contact 1	<ol style="list-style-type: none"> 1. Phone call(s) to householder 2-3 weeks after Visit 1 to check progress, celebrate progress and offer support to householders. 2. Send letter of encouragement after 2 weeks of action e.g. <p>“Congrats on being part of the program... Lots of other similar householders are doing actions like you i.e. list a few common actions. Everyone is doing well. You are really putting in a great effort. Etc”</p>
Preparation for Visit 2	<p>Prepare for this visit by looking at:</p> <ol style="list-style-type: none"> 1. Past energy use data from gas and electricity monitoring equipment 2. Home Energy Audit results for each house (appliances, numbers of occupants etc) 3. Identify any obvious high energy use appliances and/or behaviours 4. Identify some desired actions that are likely to reduce energy use/cost
Visit 2	<ol style="list-style-type: none"> 1. Check progress to <i>Pledge</i> 2. If relevant, show householder the relevant ESS animation/video on a tablet 3. Introduce <i>Household Action Plan</i> concept. The <i>Household Action Plan</i> is the complete list of actions that each householder decides to do – it builds on <i>Pledge</i> with additional energy efficiency actions. 4. Develop <i>Household Action Plan</i> 5. Arrange next contact i.e. type & frequency. 6. Phone call, text, email etc in 2 weeks 7. Identify and note if the householder might be an energy efficiency mentor i.e. willing and suitable to talk to other householders about their

	experiences.
Contact 2	<ol style="list-style-type: none"> 1. Contact householder to check progress 2. Celebrate success if 4 or more actions have been attempted/achieved already (attempted/achieved = at least 5 weeks out of 8) with: <ul style="list-style-type: none"> • letter from a significant person (mayor, celebrity etc) • offer householder the option to share experience with other(s) i.e. at a group coffee/tea (Visit 3 below) and note if they are willing 3. Offer support to householders that require it (e.g. reminders via text, alarm on ph., email etc)
Visit 3	<p>Visit 3 is a pre-arranged gathering for a group of householders that are participating in the ESS at a suitable location such as a café /house/council facility.</p> <p>The aim of this is to:</p> <ul style="list-style-type: none"> • Provide an opportunity for participating householders to meet to discuss their experiences/ barriers/opportunities with others involved in the project in order to increase the number of desired actions that are practiced • Motivate people to continue to act to increase their energy efficiency by getting them to share stories in order to maintain the behaviour change • Provide an opportunity to showcase high achievers and other successes to other participants • One or more participants to pledge and adopt one or more desired behaviours following the session • See if any participants are interested to attend and/or arrange a further event like this one • Set another date for additional event • Share knowledge <p>Actions</p> <ol style="list-style-type: none"> 1. Arrange Visit 3 i.e. 2. Identify and book a suitable venue 3. Invite all local and suitable participating householders 4. Populate the <i>Visit 3 Itinerary Template</i> with relevant details i.e. speakers names, location, times etc 5. Contact all invitees 2-3 days prior and confirm event, attendance, transport arrangements etc

Appendix 9: Script for EAP Visit 1

Introduction

Over the next few months we will going on a bit of a journey exploring and building a personalised householder action plan to support you to reduce your energy use & bills.

Today we will **identify the actions for you that can help reduce your energy usage, whilst maintaining your comfort** - and you can choose whatever actions you think you would find easy to do. I am here to support you in whatever way I can.

Before we can really get started it is important to understand how your home fits into your life.

Slice of cake

Remember I asked you what type of cake you like? Well I have brought a (*insert type of cake*) for you and your friends and family, but first I am going to ask you to slice it up into proportions of the time you allocate to various activities.

I have a selection of labels here with different activities that people tend to do such as gardening, health, home, social, grandkids, holidays, reading and lots of blank labels too. I will show you a few examples of different households and how they have divided up their activities - and ask you to do the same. Just take your time - it is a bit of fun

Present several pictures of different sliced up cakes

Fantastic. Are you happy for me to take a picture of the cake? *Take photo*

Highlight the larger slice of the cake and use to start discussion to try and identify the things in life that are most important to the householder and can be used as a motivator to instigate change.

Example: You spend a lot of time on (insert primary priority eg health, family, etc) and then support their decision with a positive comment such as:

- it is so important to keep your healthhealth
- how lovely to enjoy your grandchildren growing upfamily
- it is so important to get out and have a chat and a laugh.....social

Identify with open questions what is important to them, and how they allocate their time.
Indulge your time on this stage.

Then ask them how they would like the cake to look if they could do what they really wanted to in the future i.e. holidays, presents for grandkids, new house, new car, more time with family/friends, gardening etc. Encourage them to redo the cake so that it is how they'd like things to be, using '+' and '-' signs to change things. **Take a photo of the ideal cake. Note the biggest slice/their priority.**

Once you have learnt what you can, you need to find a link to reintroduce the idea of a first pledge

Health..... have the right atmosphere and temperature to relax in

Family.....have a warm house for the kids to come to or money to take them on adventures

Social...some of your friends may be quite interested in what you are doing with this study

Wouldn't it be great to (*list top 6 outcomes*) save money on bills, increase your comfort, time for friends and family..... And make the house healthier, so you can spend less time at ('-' signs on cake) medical appointments/visits and more time with family & friends ('+' signs on cake) by changing the way you operate the house.

Introducing actions

To get "benefit" let us start the journey to a personalised **Householder Action Plan**. I have a list here of some of the actions that may help you to achieve progress to your goals **and** reduce energy usage for your house - so let us have a look, as you may already be doing some of these?

Present list of actions (top 15, or full list as required) and get them to acknowledge what they do and what they don't.

*Following this process **introduce the idea of choosing one action** they think they could implement*

Do you think there is one action out of these you could have a go at doing?

If they want to do more than one action, they can, but do not encourage it.

Yes - great tick whichever one you like and progress to fridge magnet.

No – explore objections but do not apply pressure

- *Objections*
- *I do not want to be cold*
- *I think at this age I am allowed to be comfortable*
- *Do you really think such a small measure would make any difference*
- *I may do it but I will never get partner/family to agree etc....*

Fridge magnet

This is a fridge magnet and you can mark it off each week as you do this action.

Get them to write the pledge on the magnet and stick on the fridge with them. Use paper copy if they do want to use fridge magnet.

Encouragement - and what is next?

*Well done. That is a great action to choose. Good luck, and I will call you within the next couple of weeks to see how you are going. Try to **link your farewell back to their core pleasure** - this verifies you have been listening.*

- *Hope that doctors appointment goes well*
- *Enjoy those grandchildren of yours*
- *Enjoy your walk next week*

I'll speak to you soon - and thanks for your time.

Appendix 10: Script for EAP visit 2

Seek Feedback on the first pledge attempt

How did you go with the *<insert pledge>*? Use information from telephone conversations and examine fridge magnet. How hard did you find it? Did you have any relapses? *With couples* Did you both manage to do it?

Offer lots of praise and compare this action to other success for norms

To make this effort truly meaningful *<insert links to core motivations>* we can build together a *Householder Action Plan* exploring other actions you can chose to do over time, to increase your comfort and reduce your energy use. Overall this study is trying to achieve a 10% reduction for householders in the Energy Action Program.

You may want to have a look at this video that has been produced on this (many little things combined together).

Present and discuss the other list of actions

- *Guess the priority*

See all these different actions that you could do in the house. Do you want to have a go at putting them in order as to which would have the biggest impact on reducing your energy use? (*Discuss and take a photo of selected order*).

Repeat this process of actions, but this time ask them to put actions in the order of 'ease of implementation' (*Discuss and take photo of selected order*).

Help them choose a few more actions for the fridge magnet (about 3 is sensible) and explain they can add to this when they choose (*with couples you may get them each to choose actions and persuade the other to do theirs*). Get them to write chosen actions on the fridge magnet

Present pictures of ease and impact actions, and write into householder plan.

Summarise on potential cumulative impact and link to core motivations.

Show more videos on tablet that are relevant to specific actions

Discuss the potential of getting out and meeting with fellow householders to discuss this.

We are planning a social get together with other householders in a nearby meeting place for a morning or afternoon tea. The aim is to get together and share some experiences on things we have found easy and hard.

We would love you to join us.

Would it be something you would consider? Offer transport as required, suggest some date and location options and maybe talk about some of the other lovely householders. Do not ask for commitment at this stage, but just sow the seed.

Explain that you will send through an invitation in a month or two to some of the householders involved in this process.

I will call you between now and when we all get together to see how you are going.

Speak to you soon and thanks for your time

Appendix 11: EAP Group workshop information

Group visit structure

The invitation: The suggested invitation is attached and comments are welcomed. Your council logo can be added to the first page. You may need to ring and see whether they would attend as follow up.

Food: Most organisations are using external catering and buying in advance cakes from a local bakery. Coffee and tea is usually provided at the local venue.

Timing and meeting format: Suggest that this is a 1.5 to 2 hour event. Suggest that 10.30 to 11am is the preferred start time.

The Group meeting structure will be:

- Meet and greet - informal casual chatting, food and drink orders
- More formal introductions by ELO (see suggested script)
- Successful Energy action experiences (starting with the mentors) and let the conversation evolve.
- Go round the table at some point to give the shyer householders the chance to speak –possibly use top 15 versus 45 lists for this.
- Cover the 4 key behavioural areas of: heating and cooling, appliance management, hot water and bills
- Show the energy action videos for feedback – there are 6 videos, invite comment after each one.
- Encourage self-managed future meetings. – Option of coordinating another get together to arrange a visiting speaker or to discuss independent actions taken. Clearly highlight council responsibility stops here.

Tools

- Bills laminated
- Top 15 and top 45
- Info sheet for solar
- Info sheets on tables
- Case studies if possible
- Leaflet to inform other groups and spread the word

ELO script

Introduction

The study has been running now for nearly 2 years and there have been some fantastic learnings. Within Australia there have been 20 different studies funded by the Australian Government looking at household energy and our project south east of Melbourne has been very successful thanks to your support. We recruited 320 households across 6 different councils and there has been a “*number*” households involved within this council area. It is too early to assess actual savings, but CSIRO has been working on that data following all the consent forms you signed. We hope this information will help inform future government policy and programs, and help householders to learn how to take control of bills whilst still

ensuring that comfort levels are as required. Half of those households have received advice on energy actions in the home and that is really what we are here to chat about today. The number of actions already being taken was really re-assuring, but there are clearly new learnings for many which we can talk about today.

We will aim to finish by noon and we will share some of the things that have been done by you all here, or some that have been more challenging and why. I will also be showing you some new videos we have designed to encourage specific actions and your feedback on them is welcomed. There will be plenty of opportunity to chat further at the end and to share contact details if you wish.

I now handover to you and invite anyone here to give us an experience of an energy action that has been new to you or that you feel strongly about.

Mid-session guidance: Use these 4 categories below to redirect the conversation to an area that has not been fully covered to date.

For example- “we have had a good look at bills and heating and cooling - has anyone got any experiences with how they use their appliances.....”

- Heating and cooling,
- Appliance management,
- Hot water and
- bills

We have 2 lists of the top 15 and another 30 actions - did anyone find these lists of action useful or think we could have added other actions to them? (Perhaps go around the room with this for the shyer people – it is a safe subject area).

How did you find the meetings with the energy action advice? (This is optional and dependant on time management).

Showing the videos

I will just play them one at a time and open up the opportunity for feedback at the end of each one.

Closing the meeting

It is nearly noon so we will finish the formal elements of this gathering. Your feedback has been invaluable to the study and hopefully useful for yourselves.

If there is anybody in the group who wants to arrange another gathering that would be fantastic - to share these learnings.

There are no other group meetings now as part of the study, except for those who have signed up for the additional research.
















There is a leaflet here to use if you want to set up meetings on this within your own groups, but if anyone wants to stay and finish off the cake, have another drink and a natter then please do so. Nobody will throw us out until at least 1pm.

Thankyou all so much for your time and contribution.

Appendix 12: Top 15 Energy Actions

<p>Switch heater off overnight.</p> 	<p>Close windows when heater/cooler is on.</p> 	<p>Turn the heater thermostat down to 18-20°C. Every degree above 20° can add 10% to your bill.</p> 	<p>Washing your clothes in cold water can save around \$115 per year (between 50-70% of people do this).</p> 	<p>Use a fan for cooling on hot days before, or in combination with, an air conditioner.</p> 
<p>Open doors & windows the night before a hot day.</p> 	<p>Close windows early on hot days.</p> 	<p>Close doors inside to reduce area to be heated/cooled (zoning).</p> 	<p>Try to do some physical activity every day. Activity can make you feel warmer & may reduce the need for heating. Make sure any activity is approved by your doctor.</p> 	<p>Use pedestal lamps instead of whole-of-room lighting.</p>  <p>Task lighting</p>
<p>Turn off appliances when they are not being used.</p> 	<p>Switch off appliances at the wall to save standby energy. Up to 10% of your electricity use could be from gadgets on standby.</p> 	<p>Switch off the second fridge except for events.</p> <p>One fridge, not two</p> 	<p>Switch energy retailer.</p> 	<p>Use window coverings to protect windows from heat loss through glass.</p> 

Appendix 13: Other EAP Action Cards

<p>Use a thermometer to manage heating/cooling/house temperature</p> 	<p>Switch lights off whenever they are not needed</p> 	<p>Set the thermostat on the air conditioner to 26 degrees</p> 	<p>Avoid using portable heaters to save energy</p> 	<p>Go to bed early instead of using a heater</p> 
<p>Only boil as much water as you need to use</p> 	<p>Wear suitable clothes to minimise use of heater/cooler</p> 	<p>Avoid putting hot food in the fridge</p> 	<p>Buy energy efficient (high star rating) appliances: fridge, freezer, dishwasher, washing machine, TV, etc.</p> 	<p>In summer, open windows when it is cooler outside the house than inside - at night or when a cool change arrives</p> 
<p>Dry washing outside on a washing line, or use a clothes rack indoors rather than a clothes dryer</p> 	<p>Close curtains to keep the house warm/cool</p> 	<p>Set flip mixer taps to the right (cold)</p> 	<p>In summer use outside shading to keep the direct sun off windows.</p> 	<p>Have short showers to save water, and the energy used to heat that water</p> 

Appendix 14: Fridge Action Magnet

Things to do



-
-
-
-

Actions that you are trying to do	Indicate the week when action was done (✓)							
	1	2	3	4	5	6	7	8

Case studies *(names have been changed to protect peoples' identity)*

Appendix 15 – Case study (behaviour and IHD)

Before the Energy Saver Study

Maureen lives with her son in a property she owns. She loves to get up, go out and do a bit of shopping with her girlfriend or daughter.



The intervention from the Energy Saver Study

She received home retrofits and advice on energy actions from the Energy Liaison Officer, plus a deluxe In-home display. Retrofits included ceiling insulation, draught sealing and the hot water pipes being lagged.

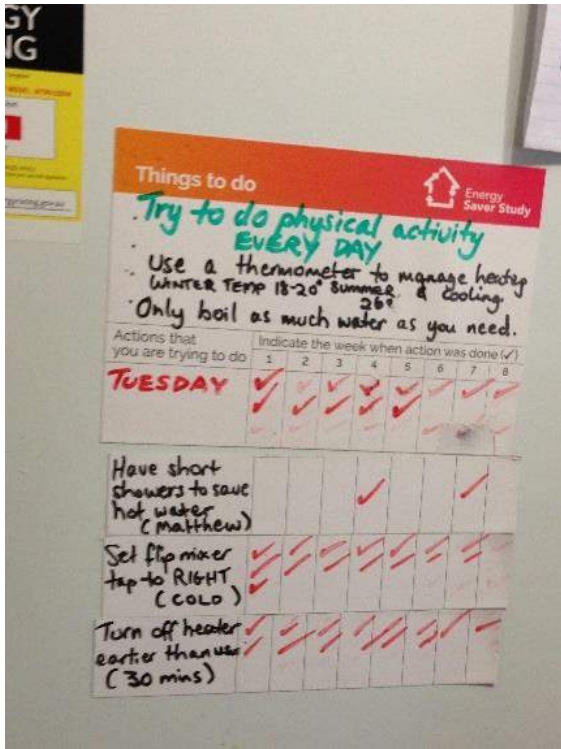
The Energy Action intervention included two face to face visits. The householder pledged to try and change a few behaviours which she had identified as possibilities. These actions were written on her fridge action magnet and she completed these over a 6 week period including:

- to use a thermometer to measure temperature
- adjust heater temperature down during winter
- try to get her son to have shorter showers
- do some physical activity herself.

Post intervention

Maureen initially found the IHD hard to understand but she learnt how to use the touch pen on the IHD and started to understand the different graphs.

Motivated by the thought of more holidays she pledged to do these actions. She found the fridge magnet useful.



Fridge action magnet

Data pre and post intervention

Location	Max temp bedroom	Max temp living room	Minimum temp bedroom	Minimum temp living room	Average temp bedroom	Average temp living room	KW main electricity daily	Gas Kwh
Before intervention Aug 2014	21.76	22.86	7.55	7.45	13.79	14	53.04	45.87
Post intervention Aug 2015	20.43	22.88	14.9	15.11	17.48	18.2	49.13	43.93

Comfort levels

The minimum temperature moved in both the bed and living areas from under 8 degrees before intervention to 15 degrees, bringing the average temperature in the household up by 7 degrees.

Energy/\$ and CO2 Saving

The gas and electricity usage decreased with electricity reduced by 27%, lighting by 14% and gas by 4%. Overall financial savings were 72cents per day and 2.6 kg CO2 were saved daily.

Appendix 16 – Case study (retrofit)

Before the Energy Saver Study

Betty lives on her own and is reliant on her pension so careful money management is critical to her. As a previously successful business owner she knows how to watch her money and manage her bills and she already owns her house.

She is already turning her power points off every day and she is very careful as to when to turn the fire on. She closes doors, she has an energy rated washing machine and when her children come to stay she tries to ensure that they don't open the fridge all the time.

When she received a phone call from the Energy Liaison Officer in January 2014 inviting her to get involved in the Energy Saver Study, she was keen to sign up as draughts and lack of money were a real concern for her.

Intervention by the Energy Saver Study

Betty is receiving a home retrofit but not behaviour change support. She received insulation batts in the ceiling, draught sealing and lighting improvements. The lighting improvements included three LED lights to replace 150w globes which were very expensive to run. The draught sealing included perimeter door seals and a door was installed to separate the kitchen from the back porch area. This also increased her security. The hot water service pipes were lagged and a valve cosy installed on the hot water pressure relief valve.

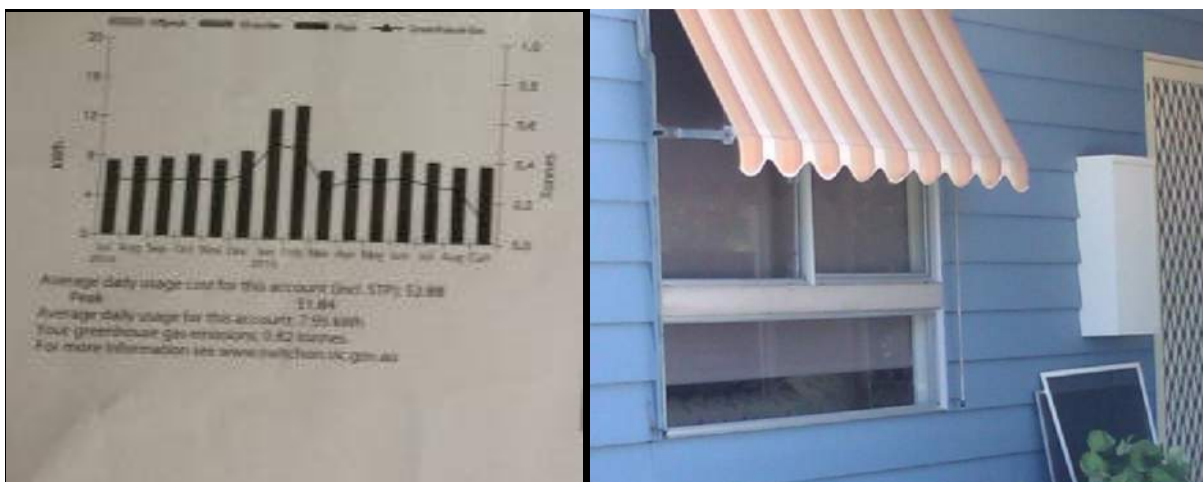




Post intervention

“I still use the heating sensibly and I am quite comfortable after these retrofits. The benefits are that the gas bill has gone down year on year in August and September 2015, the month after the interventions and this is despite an exceptionally cold winter.”

“I could tell the difference immediately” Betty said.



Energy use in the 3 winter months before and after interventions demonstrated strong savings.

Gas use (MJ) 2014	Gas use (MJ) 2015	Gas use (MJ) Change
264.83	231.8055	-33.02453436
200.2557	183.5991	-16.65661449
181.4215	169.5389	-11.88263786

Electricity use (KWH) 2014	Electricity use (KWH) 2015	Electricity use (KWH) Change
12.62309677	8.139913043	-4.483183731
13.22477419	7.607612903	-5.61716129
13.11606667	7.9693	-5.146766667

Energy use (KWH) 2014	Energy use (KWH) 2015	Energy use (KWH) Change
86.24584	72.58183378	-13.66400428
68.89585	58.64815386	-10.24770012
63.55125	55.10110519	-8.450139992

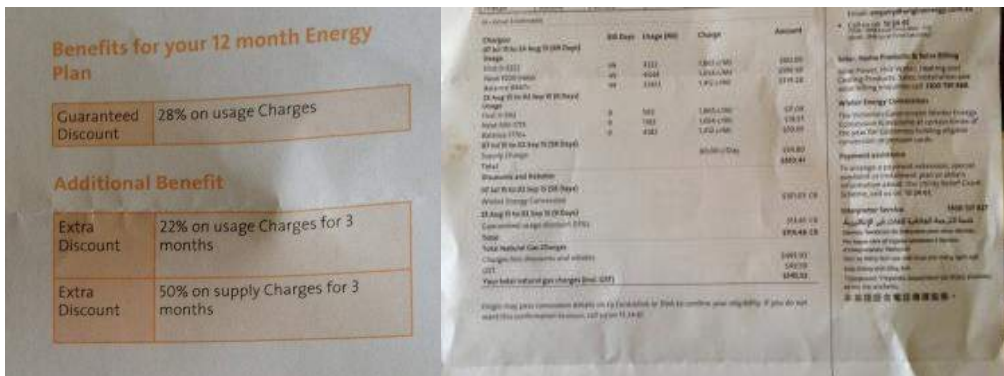
(Data is for July August and September 2015)

Appendix 17 – case study (challenging energy pricing)

Ester described her conversation with her energy retailer.

“I rang the energy retailer who are Origin with the assistance of the Energy Liaison Officer and I asked, am I on the best scheme? After various questions they then gave me a new and better scheme. This is the story which is laughable to me. They said as an old customer I could get 50% discount on usage and service charge for 3 months and then it would drop to 18% after 12 months. They asked what did I think about it and I said yes. Under the present system I knew I had 28% discount I think but I worked it all out in a mathematical manner. I challenge everything. I have a right to challenge everything and we need to fight for our rights.”

On the electricity bills the usage charge showed a guaranteed discount of 28% for 12 months and the additional discount off both service charge and usage were added. This was effective for this householder as she would challenge her retailer again in 12 months and she had received strong short-term savings. The 10% reduction in the usage discount longer term may not have been a benefit for some householders without a further challenge. The discounts available for gas were limited.



This bill on 25th August shows a usage discount guaranteed for 12 months of 28% already negotiated plus an additional 22% discount off usage for 3 months and a 50% discount of supply charges for 3 months.. The plan is called a “daily saver half year powerplan”.

Savings start to come through in the bill one month after the phone call.

Appendix 18 – case study (Energy efficiency leads to pride)

Before the Energy Saver Study

Max has lived in his house alone for 25 years which he owns. However it needs some maintenance work and is generally in need of repair.

He has tried to do several things to keep himself warm in the winter. He uses a blanket with string around the top to act as a home-made poncho and gets cheap blankets from the op shop instead of spending a lot of money on heating. He has a small electric bar heater as his sole source of heating. The house is very draughty with minimal insulation, slatted windows and gaps in walls and ceilings

Max was just not able to get comfortable in his home without running up high energy costs and his bills were becoming unmanageable. He has also had to contend with numerous personal challenges in his life including health concerns, financial management issues and family relationships.



Interventions provided by the Energy Saver Study

He was invited to join the Energy Saver Study in late 2014 by his local council Energy Liaison Officer. This involved:

- Home retrofits
- referral to the Good Shepherd for financial management counselling
- Advice on energy actions to help reduce bills and improve comfort.

In June 2015 insulation batts were installed in the ceiling and a reverse cycle heater was fitted as part of the retrofit interventions. Following the energy action advice he immediately

started zoning the part of his house he heated or cooled, turning off all appliances at the wall when not in use, only heating the quantity of water he needed.



Post intervention

Max took on some additional personal initiatives to improve the quality of his environment. He made a hand-crafted door snake, he upgraded his zoning method, he tried to draught seal his slatted windows and he planned an external shade for his north facing window. The money for the external shade was to come from his TAB betting account as the \$300 now had a preferred use. The householder had a new pride in his home and was enjoying planning, implementing and presenting his projects to others.

The Good Shepherd had helped remove a large water utility bill that together with energy bills were causing considerable stress and helped the householder arrange his finances in a more pro-active way to stop bill shock for his energy bills. This progress was initially highly successful however a new stress over health treatment bills is occurring.

He took advice on his nutrition from a local neighbour and has improved his diet. He has also increased his daily physical activity, despite some mobility challenges.

He also planned to adjust his once “adult playroom” full of old motor bikes and cardboard cut-out models and turn it into room for his family, with photos of his children and grandchildren. This would give them a suitable room if they came to stay. Spending more time with his family was a core motivation for the householder and this action was perhaps one step closer to enabling that.

The pride in the house extended to the garden with new tomato and lettuce plants for the summer

Max continues to plan home improvement initiatives and stay healthy, despite his health prognosis. The attention and support provided by the Energy Saver Study has clearly been a significant factor in addressing some of the challenges in his life.



Appendix 19 - case study (From many heaters to a better life)

Before the Energy Saver Study

This small semi-detached house in a Victorian rural town was in poor repair. Edna was elderly, lived alone and the front room is where she would watch TV. The front door from the street opened directly into this room, which was about 12m². The roof insulation was inadequate and there were 4 different heaters in this one room. Edna has purchased various heaters as she was having difficulty keeping warm even with a heater with a thermostat setting. The room contained a wood heater which she no longer uses as it is broken, an oil heater, a small electric heater and a cooler but it was clear she was still not comfortable. At bedtime she sometimes uses an electric blanket for her bed and uses a throw rug over her knees in the living area, to reduce the pain and stiffness of the arthritis.



Edna was relatively immobile and has severe arthritis especially in her hands. She receives several support service from the local council community care services. Edna received energy monitoring equipment soon after joining the project that showed energy usage by circuit (lights, hot water, power etc) for 30 minute periods. The temperature in the living room and bedroom was also measured.

Edna said "I decided to become involved in this study because I was told it could make me more comfortable and aimed to help me reduce my bills. My greatest concern about the energy usage in this house is the heating."

Intervention from the Energy Saver Study

Edna was given home retrofits on 28 May 2015 but not energy action support. Additional ceiling insulation and a reverse cycle heater/cooler were provided.

"I got given insulation even though I thought insulation was in the ceiling and a reverse cycle heater and I have noticed it is a lot better, more comfortable. The heater is very easy, it works at the press of a button. The most important thing for me has been the improved comfort and hopefully it will cut down bills a bit. I would recommend having insulation and a new heater to anybody else" said Edna.

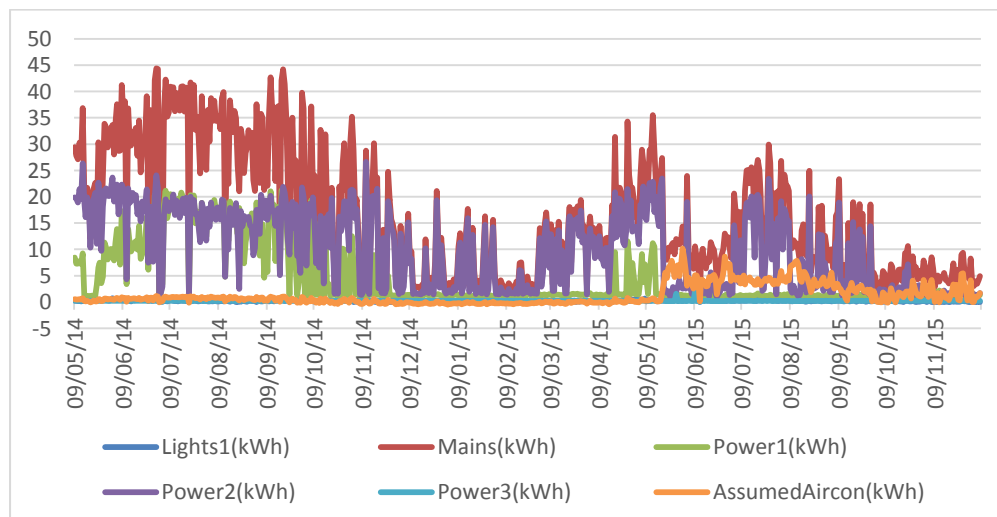
The front living room



Over a 50% reduction in electricity usage and \$5 saving a day has been achieved.

Months	2014 pre intervention (kW)	2015 post intervention (kW)	% KW change	Total Energy/Day \$ Change	Total Energy/Day Kg CO ₂ Change
5	24.96	18.22	-26.99	-2.529243	-11.19
6	31.58	9.68	-69.35	-7.52	-32.84
7	34.04	17.74	-47.88	-5.65	-24.78
8	31.32	13.96	-55.41	-6.16	-26.86
9	28.39	9.83	-65.39	-5.93	-25.85
10	19.64	5.29	-73.09	-4.46	-19.45
11	14.94	5.31	-64.43	-3.33	-14.47
Average	26.41	11.43	57.5	-5.08	-22.2

In the graph below, the 'Power 2' circuit reduces at the point of intervention and is replaced by the orange circuit which is the new heater/cooler. The overall power usage reduces consistently after the home retrofit.



9 DECLARATION

The Authorised Officer of the organisation makes the following declarations:

- I declare that I am authorised to submit this Final Report (including any attachments) on behalf of (Name of organisation)
- I declare that the information provided in this Final Report is true and accurate.
- I understand, and acknowledge that giving false or misleading information in this Final Report is an offence under the *Criminal Code Act 1995*.
- I understand that final payment will only be made in accordance with the Funding Agreement including on satisfactory completion of Milestones.

Authorised Officer Signature: Date:/...../.....

Name:

Position: Organisation:

Witness Signature: Date:/...../.....

Name:

Position: Organisation:

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

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