SOUTHERN METROPOLITAN REGIONAL COUNCIL

FINAL PROJECT REPORT

COMMUNITY GREENHOUSE EDUCATION THROUGH TARGETED ENERGY ACTIONS

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Australian Government

Department of the Environment and Heritage

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EXECUTIVE SUMMARY

This project investigated key home greenhouse abatement actions to target, public perceptions to these actions and ways to engage residents in these actions.

It was coordinated by Southern Metropolitan Regional Council (SMRC) with $32,100 funding from the Australian Government's Department of Environment and Water Resources. The project has been undertaken in partnership with six SMRC member councils (Cities of Canning, Cockburn, Fremantle and Rockingham and Towns of East Fremantle and Kwinana) under the Regional Greenhouse Abatement Project).

Prior to this project in 2005-6 Southern Metropolitan Regional Council conducted a small pilot project with residents in Town of East Fremantle. The pilot project investigated two key greenhouse actions to reduce hot water use and how to engage the community in these actions. The East Fremantle pilot project recommended developing a suite of key actions to target and further exploration of methods to reach residents.

In response to the East Fremantle pilot's recommendations, the first phase of this project researched six significant greenhouse abatement actions in the home. They were investigated through community focus groups and a 180-home phone survey using the Community-Based Social Marketing (CBSM) model. This work identified the top-ranked barriers to each action as perceived by the community. In summary the actions and their top barriers are as follows:

- *Choosing green electricity*
  - Unfamiliar with options
  - Electricity provider should already be producing green power
  - Don't know where green power comes from
- *Installing a water-saving showerhead*
  - Poor past experience with such a showerhead
  - Lack of information about benefits
  - Cannot install without assistance
- *Choosing solar hot water system*
  - Cost
  - Low government rebates
  - Knowledge of how a solar unit works
- *Shading E-W windows in summer*
  - Common misunderstanding: Internal blinds are sufficient to keep out summer sun
- *Switching off standby power*
  - Use the remote control to switch off
  - Switch hard to reach
- *Upgrade roof insulation*
  - Would upgrade unless there was a clear problem
  - It is a big messy job

Two other actions investigated early on in the focus group stage were dropped due to strong negative to each action from those residents that it was applicable to. They were *Give up your second fridge* and *Close windows during the day in summer.*

For some of the actions where barriers were identified as unfamiliarity with the appliance, rebate or cost, we recommend conducting a follow-up barriers survey to identify new barriers that emerge when householders gain understanding of the action.

In the delivery phase, strategies were developed and trialled for a few of the key actions with materials developed in response to their perceived barriers. Residents were approached by a media-based strategy in City of Fremantle and Cockburn and a direct engagement method using personally addressed letter and newsletters to 200 residents in Town of Kwinana and City of Rockingham.

Signup of Synergy's Green Power product, NaturalPower, proved to be effective through all 3 engagement methods with signup rates in participating suburbs were over 20% above the Perth metropolitan trend over April to July 2007 when strategy delivery occurred.

Given the success of the low cost methods using the local or council media, we recommend these avenues be used in future to provide information on Green Power with Council endorsement. We note that in the last month Synergy announced a price increase for Natural Power above the unchanged standard tariff. This is likely to have a negative impact on signup rates in future.

For hot water actions, incentives were offered to Kwinana and Rockingham residents via the direct engagement method. These incentives were a greenhouse visit by a plumber and a water-saving showerhead prize. These incentives to households to taking action on hot water received a low response.

In respect to the home visit in particular, the personal nature of a home visit may need a relationship built up between the project team and the household before this offer is viewed as attractive.

Actions that involve adjusting, modifying or purchasing (hot water) technology may need individualised support via phone or face-to-face for householders to gain some confidence and understanding of the technology and establish a trusted relationship for advice. Then householders may be attracted to the benefits of actions like turning down their hot water thermostat or installing a water-saving showerhead and take up incentives offered to support them.

We recommend further investigation of these and other key greenhouse actions to identify which actions need individualised support over the phone or face-to-face and which actions, like Green Power signup, work will work effectively through low-cost media exposure.

1 INTRODUCTION

This project has investigated key home greenhouse abatement actions to target, public perceptions to these actions and ways to engage residents in these actions.

The project has been coordinated by Southern Metropolitan Regional Council (SMRC) with $32,100 funding from the Australian Government's Department of Environment and Water Resources. The project has been undertaken in partnership with six SMRC member councils (Cities of Canning, Cockburn, Fremantle and Rockingham and Towns of East Fremantle and Kwinana) under the Regional Greenhouse Abatement Project). Delivery of various project components took place in four of these councils.

This document is the final report for the project under the grant name of *Community Greenhouse Education through Targeted Energy Actions*. This report outlines the results from background research into greenhouse actions, materials developed in response to these research findings and the response to the methods piloted to engage residents in these actions. This report also details final project expenditure.

2 BACKGROUND TO THE PROJECT

2.1 2005-6 Pilot Project

In 2005-6 Southern Metropolitan Regional Council conducted a small pilot project with residents in Town of East Fremantle. This project began with researching two key greenhouse actions to reduce hot water use:

- Lowering you hot water thermostat
- Switching to cold water laundry washing

Then 200 East Fremantle residents were invited to participate and take action on one of these actions.

Two recommendations from this pilot project were to investigate a larger pool of key greenhouse actions to target and explore more methods to engage residents, including direct contact with the individual where some new interaction with technology was involved.

In this project, the recommendations were taken up, though to a lesser extent the latter recommendation. The individual engagement recommendation has been explored further in another program undertaken by SMRC over 2006-7 called Energy Actions which uses individualised dialogue technique to reach residents.

2.2 Rising Community Concern

The project took place at a time of rising public concern in greenhouse abatement and climate change. The survey of residents in November 2006 as part of this project also measured this level of concern and found an increase of 13% in the number of residents now very concerned about greenhouse emissions reduction compared to 12 months earlier.

See results in the following Figure 1.

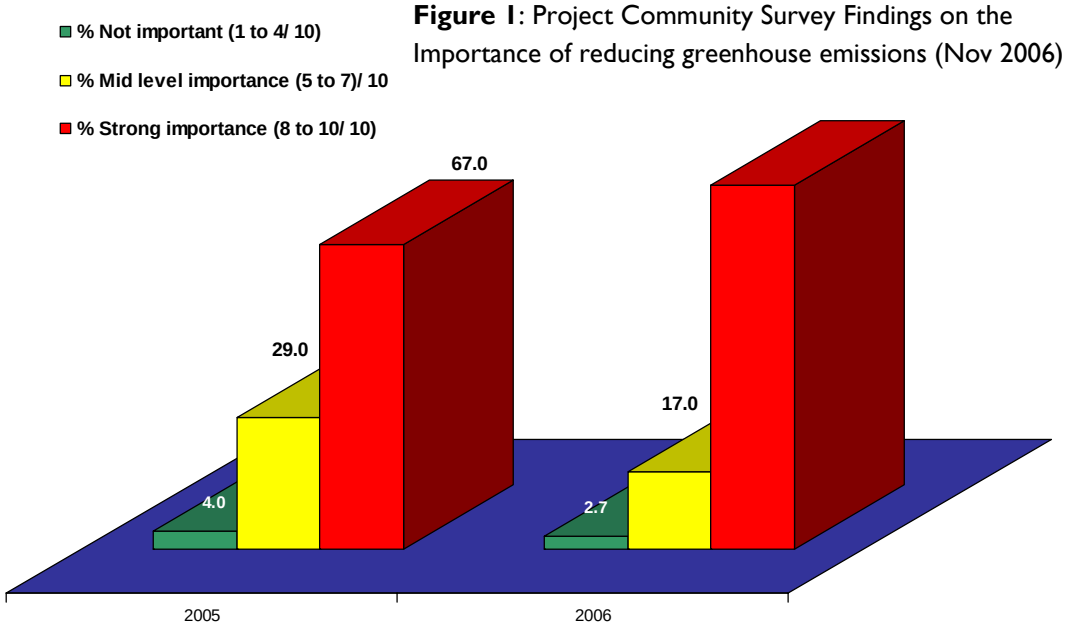


Figure 1: Project Community Survey Findings on the Importance of reducing greenhouse emissions (Nov 2006)

3 PROJECT STAGES

The project was undertaken over July 2006 to August 2007, beginning with a research phase (phase 1), followed by materials development and strategies for reaching residents and finally pilot method delivery to the four councils. The project steps are outlined below and in Figure 2.

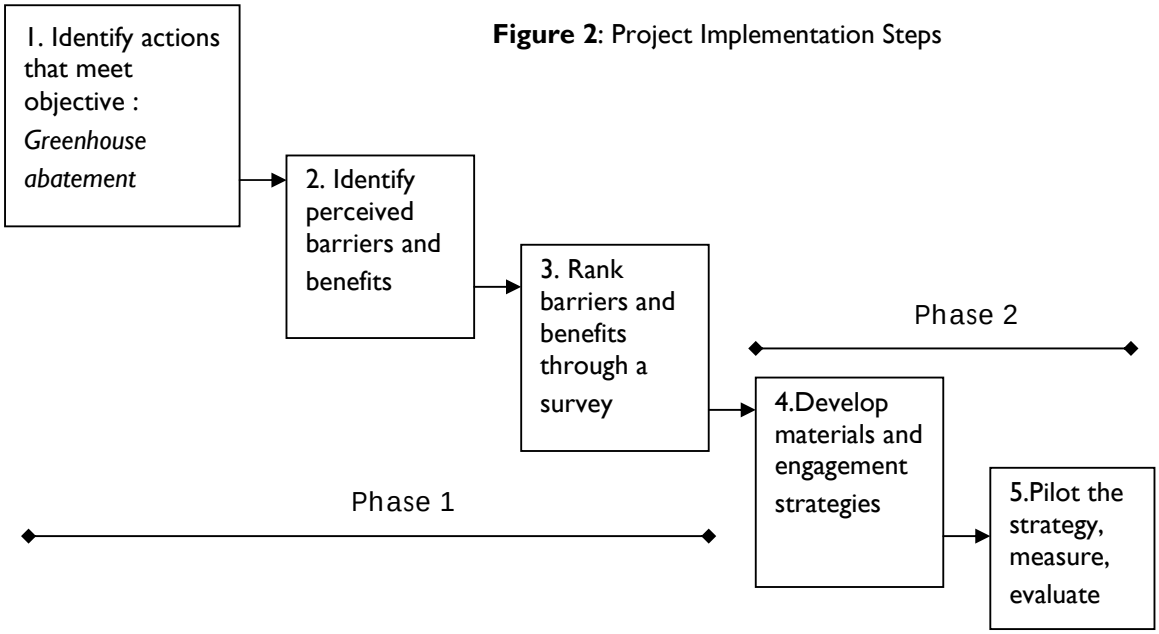


Figure 2: Project Implementation Steps

Phase 1(Steps one through to three) focussed on researching household actions to target and identify community perceptions of these actions. These three steps are based on the principles of community-based social marketing (CBSM), which is discussed further in the next section.

Phase 2 (Steps four and five) built on Phase 1 in developing educational materials based on community feedback plus the development of engagement strategies to trial.

3.1 Phase 1: Investigating key home greenhouse actions and public perceptions

This phase is based on community-based social marketing (CBSM) principles to target change on key household energy-consuming behaviours.

CBSM has been pioneered by Dr Doug McKenzie-Mohr from St Thomas University, Canada (see www.cbsm.com for CBSM tools and cases studies). It focuses on building behaviour change tools that target specific actions to achieve long-term change.

CBSM emphasises the importance of changing behaviour by directly targeting the individual actions through the following steps:

- Use focus groups to identify barriers of taking up the actions as perceived by residents (the target group) and what would be key motivators for people to change their behaviour.
- Use phone surveys to identify the percentage of responses for each perceived barrier or benefit and rank them for each targeted action.
- Develop and conduct a pilot program to overcome the perceived barriers uncovered in the research. This can involve removing barriers from the action the project aims to encourage while simultaneously adding barriers to the activity the project aims to discourage.
- Refine the program until reasonable confidence is attained in its effectiveness.
- Implement the program across the intended target audience.
- Evaluate/measure the effectiveness of the program.

This CBSM model, up to the pilot project stage, was used to investigate key energy actions in this project as well as in the predecessor pilot project on the two hot water actions.

3.1.1 Identifying the key greenhouse actions to investigate

The key greenhouse actions were sought that addressed the overall greenhouse reduction goal, as well as while meeting most or all of the following criteria:

- Have few known technological barrier across the community
- Have high measurability of the action and its energy saving
- One-off actions
- Low or no cost to the household
- Readily identifiable as greenhouse actions

These new actions identified for investigation were:

- Choosing green electricity
- Installing a water-saving showerhead
- Choosing solar hot water system
- Shading E-W windows in summer
- Switching off standby power
- Install or upgrade roof insulation
- Give up your second fridge
- Close windows during the day in summer

All these actions were considered in the focus group phase but the latter two actions were eliminated at this step due to strong resistance and low interest.

3.1.2 Investigating the key actions through community focus groups

Three resident focus groups were conducted in July – September 2006 to identify community knowledge, interest and language associated with the energy actions of interest. Residents were invited in streets close to the focus group venue and paid to attend to attract those less interested. Focus groups were facilitated by SMRC staff and involved both verbal and written responses to reduce the group conformity effect.

Figure 3: Focus Group with Cockburn residents, September 2006

Following this, the six key energy actions were chosen for statistical evaluation through the community phone survey. From the focus group minutes, SMRC staff extracted the phrases for the commonly expressed perceived barriers to action. This formed the basis for a 180-household phone survey to rank the perceived barriers.

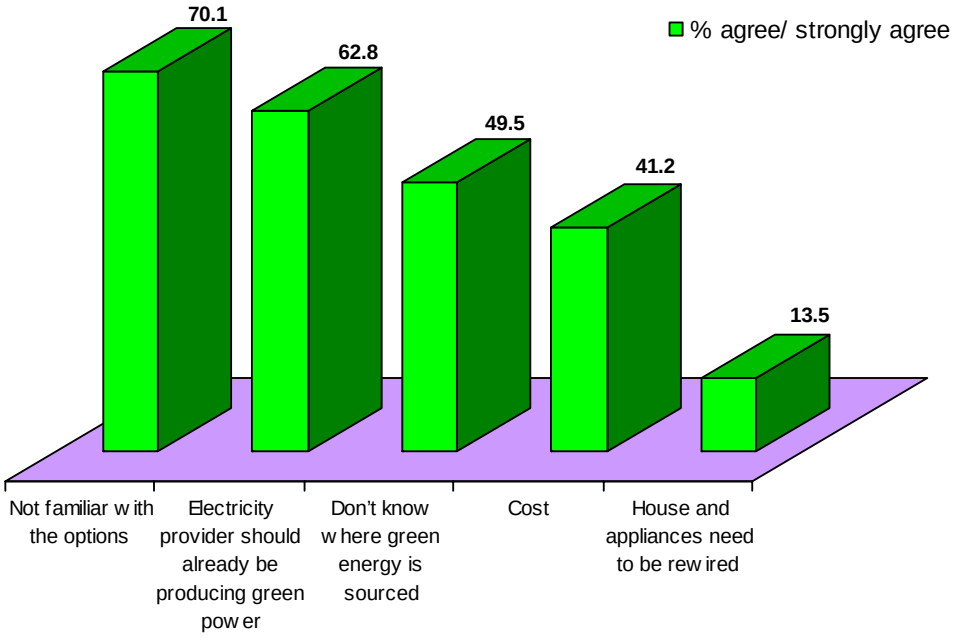
3.1.3 Ranking perceived barriers through a community phone survey

The phone survey questionnaire was developed by SMRC and Research Solutions. Research Solutions then conducted the phone survey of 180 households whose characteristics reflected the demographic mix across the region. Research Solutions analysed and presented findings in a report and presentation in December 2006. The key results are summarised below for each action.

Action #1: Choosing clean, renewable electricity

Whilst almost a third of respondents across the region are currently aware of the Green Power product, NaturalPower, offered by WA electricity provider, Synergy, and only 3.5% are signed up to the program. Key barriers to "sign up" were a lack of familiarity with Natural Power, along with a feeling that electricity companies should also be playing their "part" and providing energy from renewable sources as part of normal operations. See results in the Figure below.

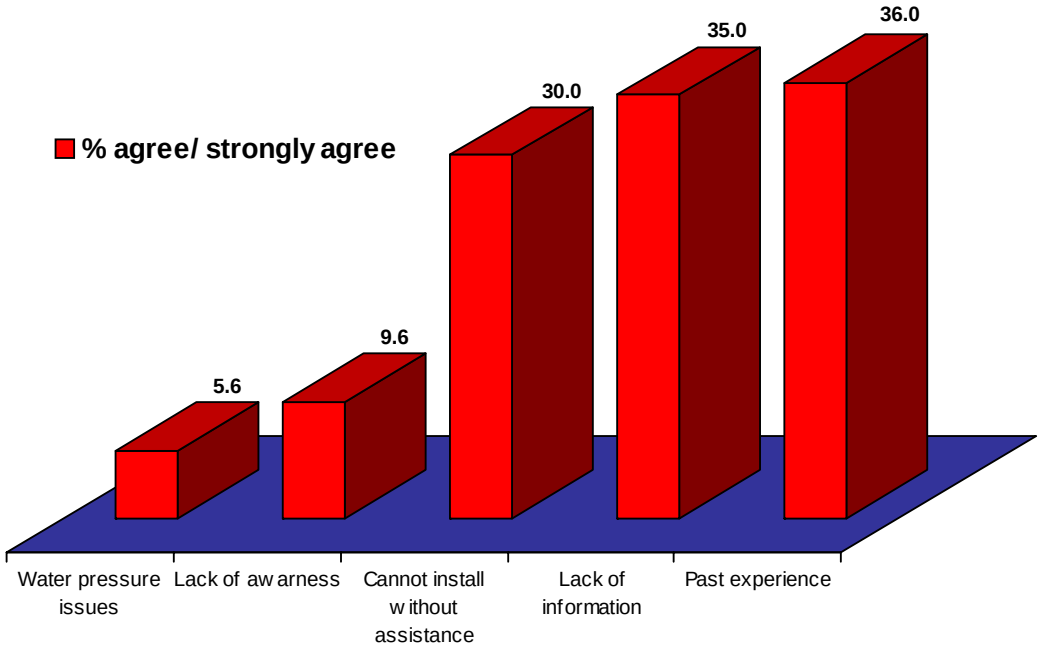
Figure 4: Perceived barriers to signing up for NaturalPower



Action #2: *Installing a water saving showerhead*

Whilst most respondents were aware of water saving showerheads, though only 45% of "suitable" households (i.e. have a hot water storage unit rather than instantaneous) currently have them installed. The strongest perceived barriers related to a negative past experience involving either reduced water pressure and/or changes to the temperature of the shower, along with a need for installation assistance. Results are in the Figure below.

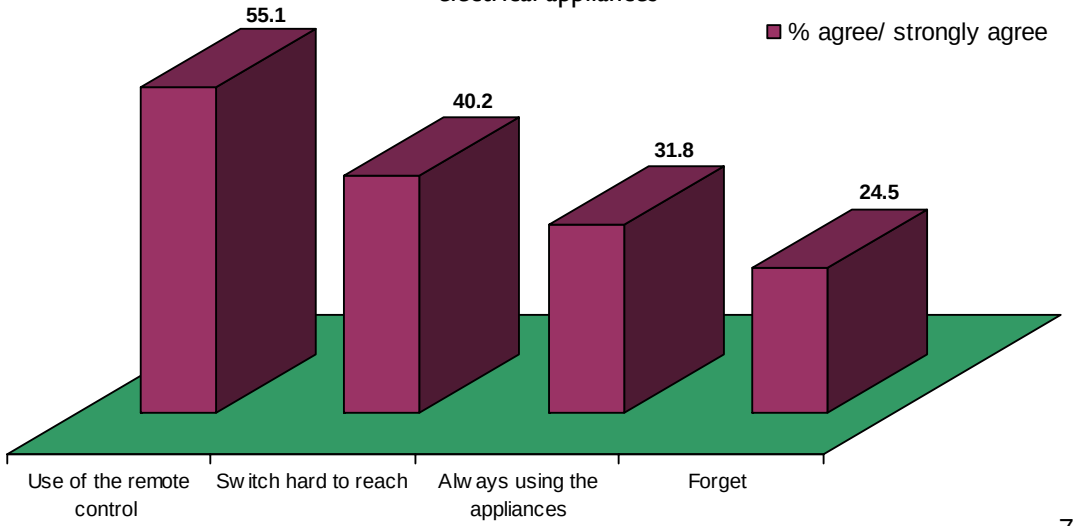
Figure 5: Perceived barriers for installing a water saving showerhead



Action #3: *Turning off electrical appliances*

A surprisingly high number (40%) of households across the SMRC Region report to being "converted" to standby switch behaviour, always completely turning off most or all appliances rather than leaving them on standby. For the remaining 59.4%, convenience is the key issue that needs to be addressed for a successful change in behaviour. See results in the following Figure.

Figure 6: Perceived barriers for completely turning off electrical appliances



Action #4: *Installing a solar hot water system*

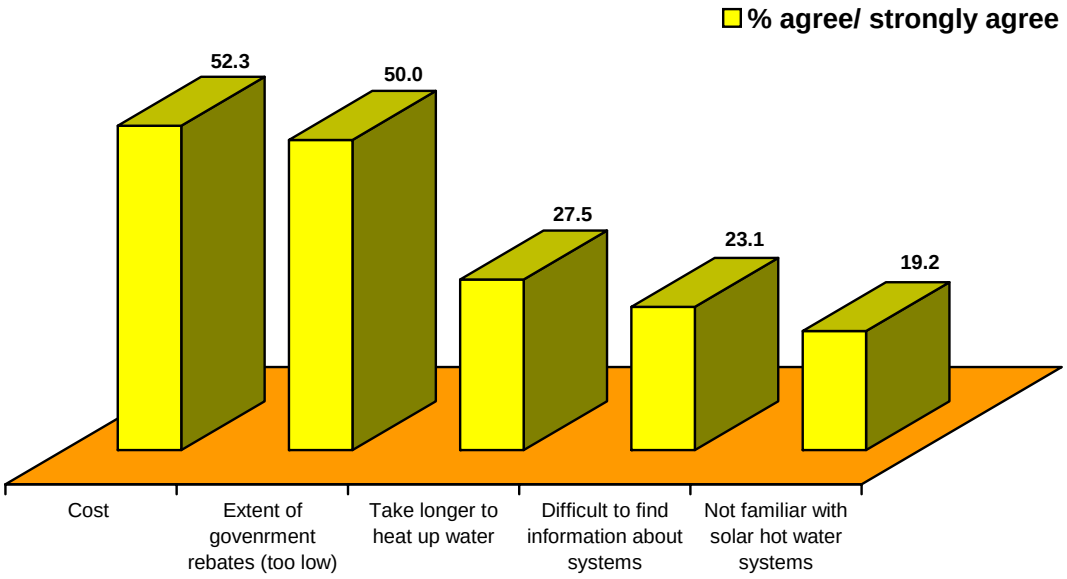
The most prevalent types of hot water systems across the region are gas – storage (38.5%) and instantaneous (35.2%). Around 19% households across the Region currently have a solar hot water system installed, slightly higher than the metropolitan average, most likely due to the large number of new homes/suburbs across the area

The decision to purchase a solar hot water system above other unit types is currently constrained by awareness and cost. There is still a level of general confusion regarding:

- The way a solar hot water system works
- The comparative cost of a solar hot water system
- The government rebate system

The results are in the Figure below.

Figure 7: Perceived barriers for purchasing a solar hot water system



Action #5: *Shading East and West-facing Windows*

Whilst there is a level of concern regarding sunlight and heat entering the home through unshaded east and west facing windows, for 25% of homeowners reporting to be affected, internal blinds and curtains are the "solution" for the majority (54.3%) So there is a clear misconception that internal blinds or curtains adequately address direct heating of rooms through sunlight in summertime.

Other issues like the cost of external shade provision and structural barriers (being too close to a boundary fence to install external window covers) also prevent installation. The most preferred methods of external window shading were window tinting and roller shutters

Action #6: *Upgrading or installing roof insulation*

Currently almost 90% of homeowners occupied houses report to have roof insulation installed, mostly roof batts and fibre/ fibrous material.

Once installed, however, roof insulation appears to be "set and forget". The strongest barrier to homeowners upgrading insulation was no apparent problems being identified and the time to address this "big job". See results in the Figure below.

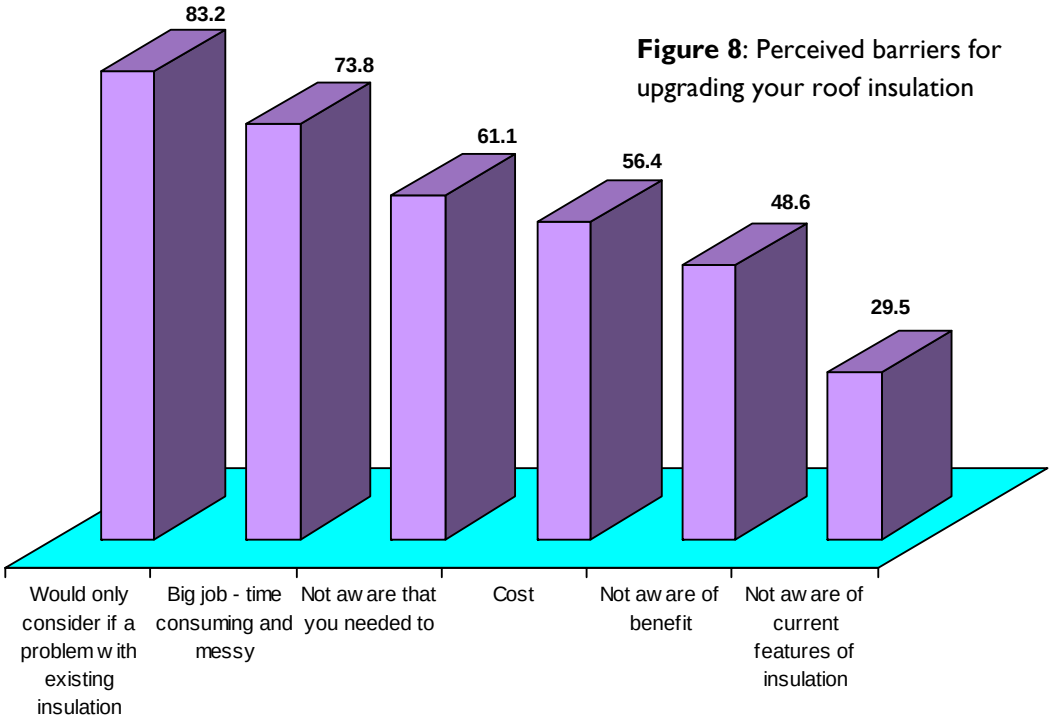


Figure 8: Perceived barriers for upgrading your roof insulation

3.2 Phase 2: Strategy Development and Pilot Approach Deliveries

This next phase developed ways to engage residents in some of these actions, to start testing methods to achieve behaviour change.

The top-ranked barriers identified in the community survey indicated some key actions needed a strategy with specific information while others showed a need for both information and assistance with unfamiliar technology.

In the grant application for this project, the delivery phase had funds identified for a media-based strategy and a direct engagement method with 200 residents.

3.2.1 Media-based strategy

Signing up for Green Power was identified as an action that may be suitable for this indirect approach, given the barriers of unfamiliarity. Also the action involves a phonecall to Synergy, rather than installing or adjusting technology, which in the 2005-6 pilot project appeared to need direct individualised support.

Synergy were able to provide SMRC with Natural Power signup numbers per suburb so we could track trends pre and post strategy in suburbs reached against the trend across the whole Perth metropolitan area.

Independent Media - Fremantle Herald

The Fremantle Herald is well-read by City of Fremantle residents so was chosen as a suitable local newspaper to trial this strategy. Two advertisements were run in the

Herald two months apart – April and June 2007 (see Appendix 2). The ad contents responded to the perceived barriers through providing details on:

- How to signup
- The cost
- Where green power was sourced from

and provided endorsement by City of Fremantle to strive for a higher signup target amongst local residents and businesses. Readers were also directed to phone SMRC for further information or pick up information from Council reception. This information was the newsletter developed for the direct strategy on Green Power and a Synergy signup form.

Council Media – Cockburn Soundings

A large article was run in City of Cockburn's regular newsletter to residents, Cockburn Soundings in July 2007 to see the response from Council-run media (see Appendix 3). The contents were similar to advertisements, as well as clarifying the different fuels generating electricity on a standard tariff compared to Natural Power. The article also indicated the cost of Natural Power could be offset through installing a water saving showerhead if you had a storage hot water system.

The impact was again tracked through Synergy data for City of Cockburn suburbs. In addition, readers were given the chance to win a water saving showerhead if they phoned through their interest to City of Cockburn staff. This was designed to have the dual benefit of identifying the level of interest in readers to take up such an offer and to potentially gain a story of a positive experience with a water-saving showerhead to overcome this top perceived barrier.

3.2.2 Direct Engagement

A more personalised approach was chosen to address the hot water actions involving technology – the shower rose, hot water system type and its control. The actions specifically addressed were:

- Installing a water saving showerhead – quantified water and energy savings
- Choice of hot water system – the solar hot water heater
- Lowering your thermostat on certain unit types where safe to do so

With this approach, more detailed information could be provided in a personalised manner – personal letter with project newsletter and a free home visit offer.

Another strategy anticipated from this home visit offer was to gain personal stories from those willing to share their positive story on use of a water saving showerhead or taking another hot water action. This was intended to address perceived barriers like "bad past experience" for water saving showerheads and create norms for actions like choosing a solar hot water systems, influencing those who have never considered the solar option.

This direct engagement approach also provided the opportunity to compare its impact on the signing up to Green Power with the media approach.

Kwinana and Rockingham Residents

200 households in Town of Kwinana and City of Rockingham were identified by Council staff to trial this strategy. In May 2007 selected households first received a letter of introduction to the greenhouse project through a personally addressed letter from the Mayor. Within this first correspondence information was provided to the household on Green Power in the form of a newsletter and an offer to win one of two greenhouse assessments of hot water by a qualified plumber (see Appendix 1). This offer was restricted to two households out of the 200 invited.

In July a followup newsletter was sent to householders on hot water actions, plus a step-by-step guide on lowering your hot water thermostat.

In both mailouts, residents were directed to SMRC staff for any queries they had or interest in the free greenhouse visit.

Evaluation of the different delivery methods is discussed in the next section.

4 RESULTS FROM PILOT DELIVERY

4.1 Green Power Action

Interest in the Fremantle Herald advertisement was first registered through several phone calls received at SMRC. One phonecall was received by City of Cockburn staff regarding the article and to register interest in the showerhead. No phonecalls were received from the much smaller pool of 200 residents in Kwinana and Rockingham directly corresponded with.

There has been a rising trend of NaturalPower signups across Perth metropolitan area. The following Table 1 presents the comparison with the suburbs reached in this project. Across all delivery methods an increase of over 20% in signups occurred above the metropolitan trend. We note that signup numbers in single suburbs of Wellard and Shoalwater are however still very small.

Table 1: NaturalPower Signup pre and post project delivery

Region	**Signup Numbers *pre-project* delivery 31/3/07**	**Signup Increase March to 31/5/2007**	**Signup Increase March to 6/8/2007**
Perth (baseline)	4,074	14%	30%[1]
Fremantle	198	Ad #1 38%	Ad #2 53%
Cockburn	120		Newsletter article 50%
Direct Engagement		Mailout #1	Mailout #2
Wellard *in Kwinana*	2		100%
Shoalwater *in Rockingham*	4		50%

4.2 Hot Water Actions

The interest in hot water actions was assessed by the response to the offer of rewards and support in the form of a free water-saving showerhead or a home greenhouse visit from a qualified plumber.

4.2.1 City of Cockburn Newsletter article

City of Cockburn staff received only one phonecall from a resident with an eligible storage system, so they were awarded the prize of a AAA showerhead, plumbers tape and a shower timer. A followup article with photo is now anticipated in an

[1] based on signups to 31-July, not 6-Aug 2007

upcoming City of Cockburn newsletter with the benefits of water-saving showerheads.

4.2.2 Direct Engagement with 200 Kwinana and Rockingham Residents

No phonecalls were received by SMRC staff for the free greenhouse visit offer, which was a part of the first mailout to residents.

The reasons for the poor response may be a combination of the offer being too restrictive as only homes with a storage hot water system were eligible (around 40% in the region from the phone survey findings) and the personal nature of a home visit may need a relationship built up between the project team and the household before this offer is viewed as attractive. Other councils have experienced low take-up rates to publicised free energy audits. On the other hand, in the SMRC's EnergyActions project earlier this year, interest in home energy visits was surprisingly high however this offer had been presented to the household following a phone conversation with a resident so a relationship had been established first.

5 PROJECT BUDGET

SMRC was awarded a $32,100 grant from Environmental Education grants programme within the Australian Government's Department of Environment and Water Resources in the 2006 round.

The project expenditure is presented in Table 4 below. In addition there were in-kind contributions of officer time from project partners.

Table 4: Project expenditure May to August 2007(ex-GST)

Activities	Details	Total DEH support	Expenses reported in milestone 1	Expenses reported in milestone 2	Expenses to milestone 3	Total
Conduct focus groups and email surveys	Phone Survey with residents and statistical analysis	4,800	3,399	1,303	0	4,702
Conduct a statistically-based phone survey		12,000	5,963	5,963	0	11,926
Develop a strategy to engage households in the identified actions	Officer time to develop key messages to tackle perceived barriers and communication approaches for delivery	4,800	0	2,128	2,713	4,841
Implement the overall strategy to the identified households		5,400	0	0	5,134	5,134
Develop materials for the home visits	Printing, stationary	600	0	364	841	1,204
Evaluation through phone calls and home visits		3,300	0	0	2,328	2,328
Summary report including looking ahead to a strategy to combine all actions		1,200	0	0	1,130	1,130
Adminstration cost at SMRC					3,488	3,488
Total		**32,100**	**9,362**	**9,758**	**15,634**	**34,754**

6 CONCLUSIONS AND RECOMMENDATIONS

This project identified several significant home greenhouse actions and the barriers to each action as perceived by the community. **The information from the focus groups and community survey was invaluable in gaining an understanding of community thinking on these actions.** It provided the basis for strategy development in this project and will assist future community greenhouse projects. **For some of the actions where barriers were identified as unfamiliarity with the appliance, rebate or cost, it would be prudent to conduct follow-up barriers survey to identify new barriers that emerge when householders gain understanding of the action.**

The survey findings were used to develop materials for a few of the actions and residents were then approached through a range of engagement methods.

Signup of Synergy's Green Power product, NaturalPower, proved to be effective through all 3 engagement methods – local newspaper advertisement with Council endorsement, Council newsletter and direct mailout of letter and brochures. **Signup rates in participating suburbs were over 20% above the Perth metropolitan trend over April to July 2007 when strategy delivery occurred.**

Given the success of the low cost methods using the local or council media, we recommend these avenues be used in future to provide information on Green Power with Council endorsement. We note that in the last month Synergy announced a price increase for Natural Power above the unchanged standard tariff. This is likely to have a negative impact on signup rates in future.

Incentives to households to taking action on hot water received a low response. **Actions that involve adjusting, modifying or purchasing (hot water) technology may need individualised support via phone or face-to-face for householders to gain some confidence and understanding of the technology and establish a trusted relationship for advice. Then householders may be attracted to the benefits of actions like turning down their hot water thermostat or installing a water-saving showerhead and take up incentives offered to support them.**

We recommend further investigation of these and other key greenhouse actions to identify which actions need individualised support over the phone or face-to-face and which actions, like Green Power signup, work will work effectively through low-cost media exposure.

We note that measurement of change for some actions will present hurdles, unlike the Green Power signups in Perth that are regularly monitored by Synergy.

APPENDICES

Appendix A - Invitation letter, prize flyer and newsletters

Appendix B – Green Power Advertisements

Appendix C – Article in Cockburn Soundings

Appendix A-1: Letter printed onto Town of Kwinana and City of Rockingham letterhead to 200 households and Prize flyer

Date

Name
Address

Dear Name,

Increasing home electricity consumption from coal and gas-fired power stations is contributing to global warming and the use of energy resources that cannot be replaced.

The City of Rockingham /Town of Kwinana and the Southern Metropolitan Regional Council (SMRC) are concerned about this issue and are working together to provide the community with information on easy ways to reduce home greenhouse emissions.

Your neighbourhood has been selected to pilot the delivery of information on the top three greenhouse actions in the home:

- *Choosing renewable electricity supply* to eliminate greenhouse emissions from your electricity
- *Improving the energy performance of your hot water system,* the largest user of energy in the home
- *Reducing hot water use in the shower,* through a water-saving showerhead.

Provided with this letter is some information on signing up for clean, renewable electricity. In the brochure you can find out about:

- What is GreenPower?
- Where is it sourced from?
- How to sign up for GreenPower?

Also enclosed is an offer for two lucky households to win a free home greenhouse visit focussed on hot water. Fill in the form and return it by mail or email your responses to us.

If you have any queries about your climate change or your home energy use, you can contact the Greenhouse Team at SMRC on 9329 2700.

Yours sincerely,

Mayor or Chief Executive Officer
City of Rockingham /Town of Kwinana

A project is funded by an Environmental Education grant from the Australian Government and a regional partnership of six councils including City of Rockingham and Town of Kwinana with the Southern Metropolitan Regional Council.

Appendix A-2: Newsletters of Kwinana and Rockingham residents

Who Sells Green Power to us and from where?

WA residents can purchase Green Power from Synergy or an interstate provider. The Government-accredited providers are:

- Synergy – NaturalPower (phone 13 13 53)
- ActewAGL – GreenChoice (Phone 13 14 93)
- Climate Friendly – Climate Neutral Power (Phone 02 9281 0358)

The 2005 Green Power Audit Report for the WA providers in the below table show that renewable electricity was generated from wind, solar and landfill gas power in WA and other states. The electricity grid then carries this power into homes.

Name of generator	*Location*
Natural power - Synergy	
Albany wind farm	Albany, WA
Kalbarri PV System	Kalbarri, WA
Rockingham PV System	Rockingham, WA
GreenChoice – ACTEWGL	
Broadmeadows Landfill Gas	Broadmeadows, VIC
Millar Road Landfill Gas Power Generation Facility	Rockingham, WA
West Nowra Landfill Gas	Nowra, NSW
Starfish Hill Wind Farm	Starfish Hill, SA
Canunda Wind Farm	Tantanoola, SA
Bendora-Stromlo Mini Hydro	Canberra, ACT
Climate Neutral Power – Climate Friendly	
Canunda Wind Farm	Canunda, SA
Codrington Wind Farm	Codrington, VIC

For further information, visit **www.greenpower.com.au**

Disclaimer: The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the Australian Government or the Minister for the Environment and Water Resources.

This initiative is through a regional partnership of councils coordinated by the Southern Metropolitan Regional Council and part-funded by the Australian Government.

Generously funded in part by Australian Government Department of the Environment and Water Resources

Got a query?
Phone SMRC Greenhouse Team on 9329 2700

Choosing Clean, Renewable Electricity

NEWSLETTER

In this brochure

What is Green Power?
How much would it cost me?
Who Sells Green Power to us?
'Vote' with your power bill for greenhouse neutral electricity
Where is green electricity sourced from?
***and* How to sign up for Renewable Electricity**

PLUS Win a free greenhouse visit to optimise your hot water system and install a water saving showerhead! *See enclosed flyer.*

Switching to green electricity is easy and available for all households. Green Power electricity is generated from renewable sources such as solar, wind and landfill gas and helps reduce greenhouse emissions.

What is Green Power ?

By choosing accredited Green Power you can have 25% to 100% of your household's energy usage generated from renewable sources. The greenhouse pollution savings for one house are equivalent to taking between 1 and 2 cars off the road each year!

How much would it cost me?

You can sign up to Green Power for the cost of a coffee per week. You can save the extra cost of 100% green electricity (3 cents per unit used for Synergy's NaturalPower product) by undertaking some energy efficiency measures in the home at the same time as signing up. This could include replacing 5 existing light globes with energy saving lamps, lowering your hot water system's thermostat* or installing a water saving showerhead*.

** suitable only for certain hot water system types.*

In our *next newsletter*, we'll discuss how to save energy and greenhouse emissions generated by your hot water system and shower.

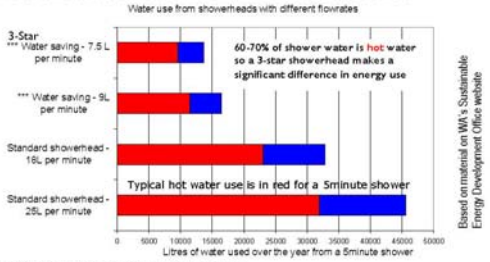
CHOOSE YOUR POWER SOURCE!

By switching to Green Power, you can choose to purchase your electricity from renewable sources within Australia, and can reduce your greenhouse footprint!

Every individual counts, every individual has a role to play, and every individual makes a difference.
Jane Goodall

A Water Efficient Showerhead Saves Lots of Energy

Your choice of showerhead makes a big difference to hot water use. New water-efficient models also offer a fantastic shower experience.



Next Time You Buy, Choose Solar

In Perth, **solar hot water systems** can provide **65 - 85% of your hot water** needs through sunlight alone. A family unit can cost $3,600 or more, but can pay for itself in 7 years. A gas-boosted unit is about $5,000, but is eligible for a rebate from WA's Sustainable Energy Development Office.

Contact the **Energy Smart Line on 1300 658 158 for free independent advice** solar hot water systems. You'll find a list of suppliers at:
http://www.sedo.energy.wa.gov.au/pdf/solar_hot_water_suppliers.pdf

Disclaimer: The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the Australian Government or the Minister for the Environment and Water Resources.

This initiative is through a regional partnership of councils coordinated by the Southern Metropolitan Regional Council and part-funded by the Australian Government.

Generously funded in part by Australian Government Department of the Environment and Water Resources

Got a query?
Phone SMRC Greenhouse Team on 9329 2700

ENJOYING A HOT SHOWER WITHOUT HEATING OUR PLANET

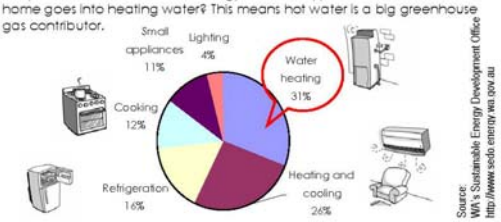
NEWSLETTER

In this newsletter

Water heating and energy use in the home
Optimise your hot water unit – adjust the thermostat
A water efficient shower saves lots of energy
***and* Next time you buy, choose solar**

Water Heating and Energy Use in the Home

Did you know that 31% of the energy used in a typical Western Australian home goes into heating water? This means hot water is a big greenhouse gas contributor.



So how can you reduce your home's hot water greenhouse footprint?

Optimise your Hot Water Unit – Adjust the Thermostat

Many hot water units are set in the factory at temperatures higher than necessary, wasting energy. So take a close look at your hot water unit. Is it an instantaneous unit mounted on a wall or a storage tank on the ground?

You can safely lower the temperature control (thermostat) on **gas *instantaneous*** units where they are accessible by hand only, such as lifting up a metal flap. Note: Do not undertake if you need tools such as a screwdriver.

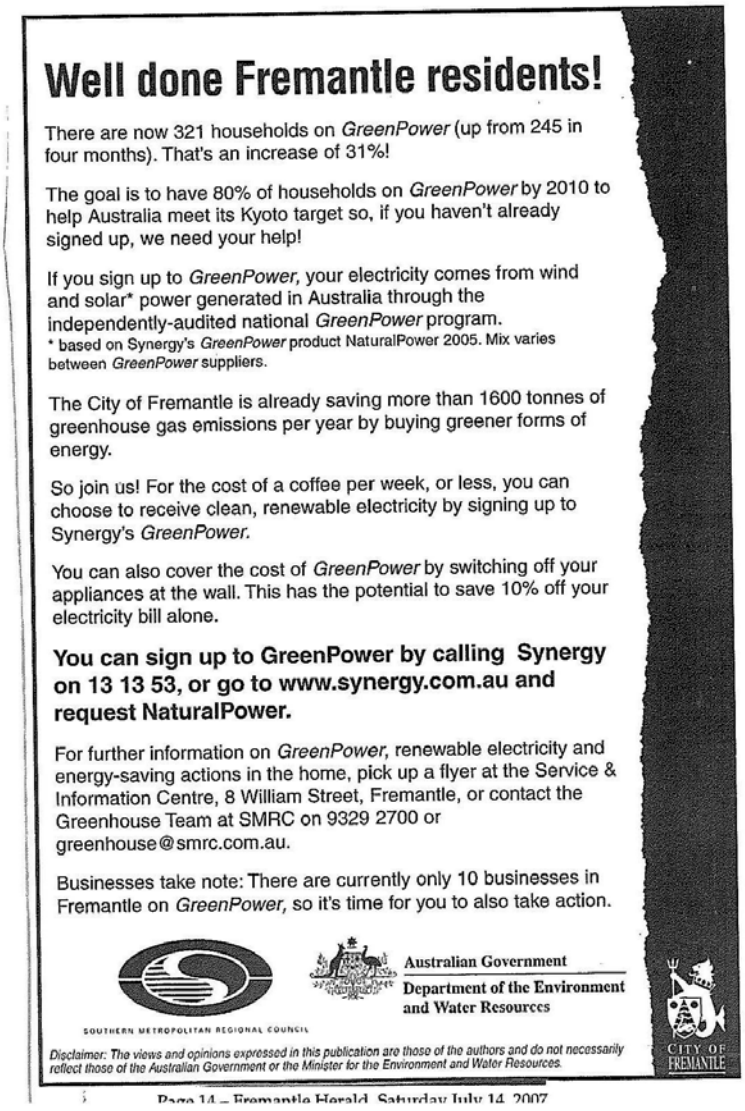
If your hot water unit is a new ***storage*** (tank) unit, you may be able to safely lower the temperature to 60 degrees Celcius if the temperature dial is visible. Water in storage units must be maintained at 60 degrees Celcius or above to avoid Legionella bacteria.

Check out the step-by-step guide on how to safely lower your thermostat.

Appendix B :Green Power advertisements in City of Fremantle via Fremantle Herald

23rd April, 2007, Fremantle Herald newspaper

July 14, 2007, Fremantle Herald newspaper



Well done Fremantle residents!

There are now 321 households on *GreenPower* (up from 245 in four months). That's an increase of 31%!

The goal is to have 80% of households on *GreenPower* by 2010 to help Australia meet its Kyoto target so, if you haven't already signed up, we need your help!

If you sign up to *GreenPower,* your electricity comes from wind and solar* power generated in Australia through the independently-audited national *GreenPower* program.
* based on Synergy's *GreenPower* product NaturalPower 2005. Mix varies between *GreenPower* suppliers.

The City of Fremantle is already saving more than 1600 tonnes of greenhouse gas emissions per year by buying greener forms of energy.

So join us! For the cost of a coffee per week, or less, you can choose to receive clean, renewable electricity by signing up to Synergy's *GreenPower.*

You can also cover the cost of *GreenPower* by switching off your appliances at the wall. This has the potential to save 10% off your electricity bill alone.

You can sign up to GreenPower by calling Synergy on 13 13 53, or go to www.synergy.com.au and request NaturalPower.

For further information on *GreenPower,* renewable electricity and energy-saving actions in the home, pick up a flyer at the Service & Information Centre, 8 William Street, Fremantle, or contact the Greenhouse Team at SMRC on 9329 2700 or greenhouse@smrc.com.au.

Businesses take note: There are currently only 10 businesses in Fremantle on *GreenPower,* so it's time for you to also take action.

SOUTHERN METROPOLITAN REGIONAL COUNCIL

Australian Government
Department of the Environment and Water Resources

CITY OF FREMANTLE

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Page 14 – Fremantle Herald, Saturday July 14, 2007

Appendix C :Green Power article in City of Cockburn newsletter – Cockburn Soundings

(July 26, 2007 release)

cockburn

choose green power

Do your bit to fight climate change. Changing your electricity to renewable sources is an easy way to reduce your greenhouse footprint. City of Cockburn is part of the Targeting Energy Actions project, a regional council partnership supported by the Australian Government Department of the Environment and Water Resources.

You don't have to install your own wind turbine or solar power system; it is as simple as a phone call to your electricity provider, Synergy. For less than the cost of a coffee a week, you can sign up to Synergy's GreenPower electricity product, Natural Power, by phoning 13 13 53 or visit www.synergy.com.au.

Ordinarily, 96% of electricity to your home comes from greenhouse gas intensive fossil fuels; that is 60 % gas, 35% coal and 2% oil. (Source: Energy WA, Office of Energy, August 2006).

If you sign up to GreenPower, your electricity comes from renewable sources such as wind and solar power generated in Australia through the independently audited national GreenPower programme.

In 2005, 99.8% of Synergy's Natural Power product was allocated from the Albany Wind Farm, so this really is a local natural energy source. (Source: GreenPower Compliance Audit Report 2005).

You have the choice to receive clean, renewable electricity. You can avoid extra costs by taking energy efficient measures such as installing a water saving showerhead.

For further information on choosing renewable electricity, pick up a flyer at the Spearwood Library, adjacent to Council offices.

Win a free water saving showerhead for your home!

If you have a storage or solar hot water system you are eligible to enter. Simply contact the City's Environmental Services on 9411 3556.

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