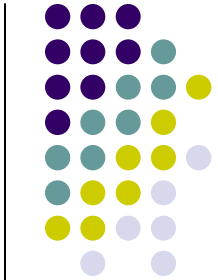
Australian Government
Department of the Environment and Heritage

SOUTHERN METROPOLITAN REGIONAL COUNCIL

2006 Greenhouse Gas Reduction Behaviours Research

Prepared by: Research Solutions
November 2006

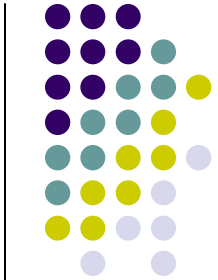
Background and Study Objectives



- The Southern Metropolitan Regional Council (SMRC) is a statutory local government authority established by 7 local Councils in the southern part of metropolitan Perth.
- It is responsible for developing environmentally sustainable waste management solutions and climate change abatement measures for the communities of Canning, Cockburn, East Fremantle, Fremantle, Kwinana, Melville and Rockingham.
- This specific project, funded by the Federal Department of Environment and Heritage*, has focused on climate change abatement measures with a particular emphasis on householder contributions to a reduction in greenhouse gas emissions

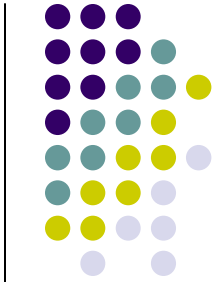
* *"The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the Australian Government or the Minister for the Environment and Heritage."*

Background and Study Objectives



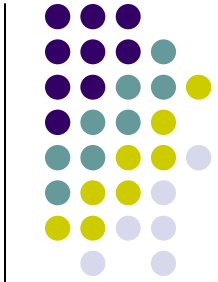
- Following on from a study completed in late 2005, this project has continued the process of exploring community awareness, attitudes and opinions regarding a range of household based environmentally friendly behaviours/ strategies linked to a reduction in greenhouse gas emissions
- The specific study objective was to measure community awareness and/or perceived barriers and benefits associated with a number of environmentally friendly behaviours including;
    - Installing a water saving showerhead
    - Turning off standby a selected number of electrical appliances
    - Choosing to purchase Natural Power
    - External shading of east and west facing windows
    - Purchasing a solar hot water system
    - Roof insulation

Study Objectives



- The series of barriers and benefits tested in the research were previously identified by the SMRC following a series of focus groups/other qualitative research with residents across the region
- An 7 point “agreement” scale (strongly disagree to strongly agree) was used to measure the perceived strength of each of the barriers identified in the qualitative research, whilst a 5 point “encouragement” scale (not at all to very strongly encourage) was used to measure the perceived value of the various benefits (including environmental, personal and economic) that may be associated with the behaviour

Our Approach



- Telephone Survey of a randomly selected representative (by gender and broad age categories – under and over 40) sample of 180 residents in the SMRC region (excluding the City of Melville)
- A questionnaire to meet the objectives of the project was developed in close consultation with SMRC representatives;
  - A copy is included as Appendix 1 to this report
  - Interview administration time was approximately 10 to 15 minutes
  - The fieldwork was undertaken from central, monitored telephone interviewing facilities in Perth, during the period from 26 October to 13 November 2006
  - Further, detailed information regarding sampling procedures, response rates and sample profiles is included as Appendix 2 to this report

Key Findings and Strategic Recommendations

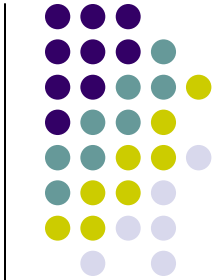
Key Survey Stats

- In order for the questions asked of each respondent to be relevant, for a number of the behaviours explored some “skips” were applied, mainly for those respondents who currently have a solar hot water system installed or are renting (as opposed to purchasing/own) their current residence.
- The skips did, however affect overall sample sizes and so are explained below;
- **For the overall sample of 182 respondents;**
  - 28.0% or 51 respondents are currently renting
  - 72.0% or 131 respondents are currently purchasing/own their home
- **Currently;**
  - 38.5% (or 70 respondents) have a gas storage hot water system installed
  - 35.2% (or 64 respondents) have a gas instantaneous hot water system installed
  - 18.7% (or 34 respondents) have a solar hot water system installed
  - 4.4% (or 8 respondents) have an electric storage hot water system installed
  - 3.3% (or 6 respondents) have an electric instantaneous hot water system installed

Key Survey Stats

- **For the installation of water saving showerheads**, only those respondents who had a storage (rather than instantaneous) hot water system installed were asked the suite of questions related to this behaviour (n=112)
- **For the purchase of a solar hot water system,** eligible respondents included (n=100);
  - Those who owned or are purchasing their own home (rather than renting)
  - Those who had been through the hot water system decision making process – so had installed/replaced a hot water system at their present home – as opposed to having the system already installed before they purchased the home
- **For turning off electrical appliances rather than leaving them on standby**, all respondents were included (n=182)
- **For the NaturalPower Program,** all respondents were included (n=182)
- **For the installation/upgrade of roof insulation,** eligible respondents included home owners/purchasers (rather than renters) – (n=131)
- **For the external shading of east/west facing windows,** eligible respondents included home owners/ purchasers who currently have east and west facing windows that are not shaded externally (n=36)

Overall, greenhouse gases are “higher up” on the agenda, which is encouraging



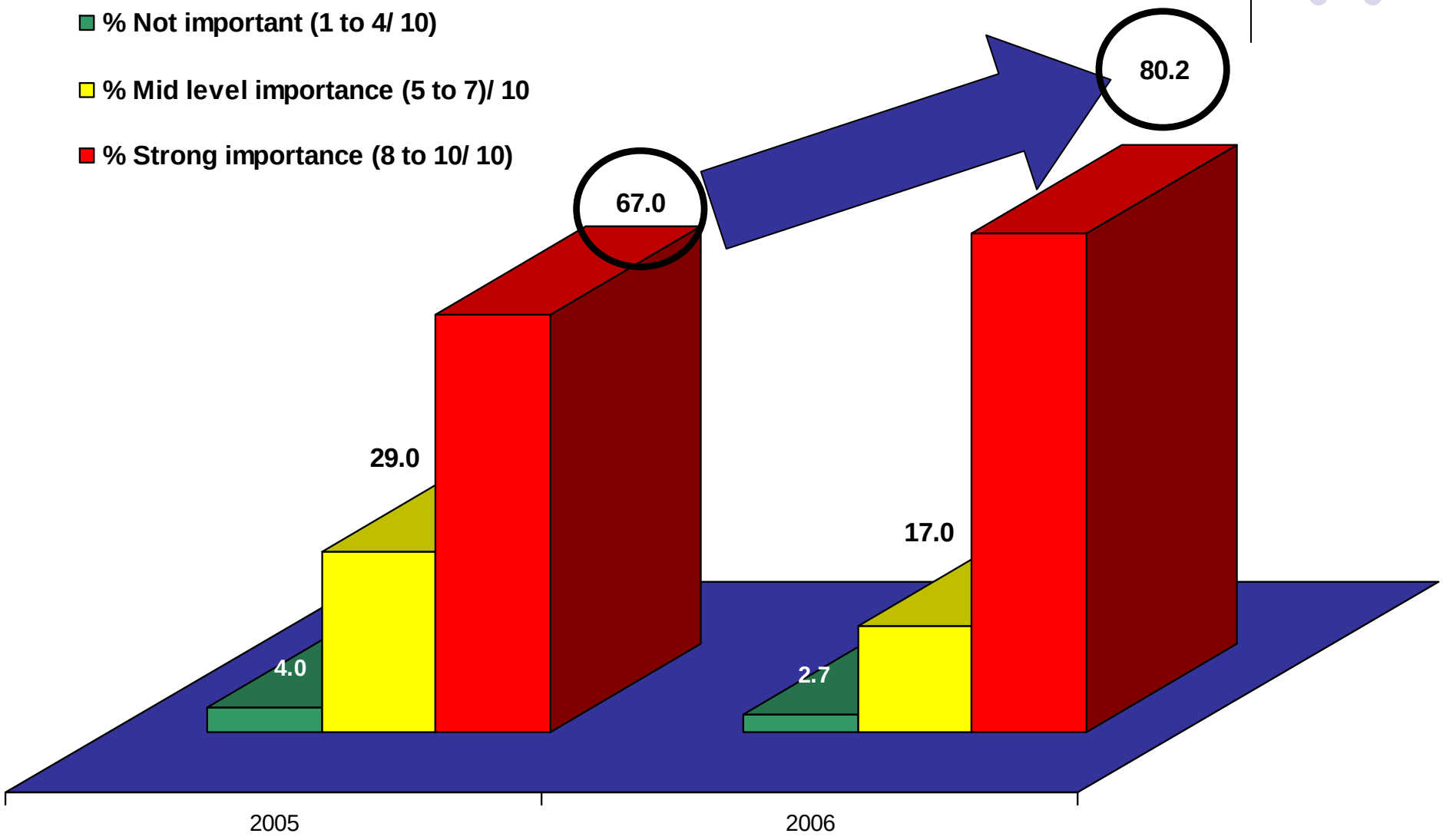
- Following on from the recent intense media coverage, feature films (like “An Inconvenient Truth”), increased Federal Government attention and debate, and the force of media personalities on high profile programs (like “Mel and Kochie on the Channel 7 Sunrise Program) introducing initiatives like “Cool the Globe”, **the perceived importance** of reducing greenhouse gas emissions has increased significantly this year, with more than 8 in 10 respondents feeling that the issue is of strong importance – in comparison with only 2/3 who felt this way in 2005

Overall, greenhouse gases are “higher up” on the agenda, which is encouraging

- Links between the importance of greenhouse gas emission reduction and behaviours around the home are, however, more complex – at present the importance of reducing emissions to respondents does not appear to be a strong force driving their behaviour or propensity to “do” things – like install a water shaving showerhead or be aware of the NaturalPower Program.
  - This may be attributable to a range of factors inducing a lack of awareness that the behaviour has positive environmental benefits and it just being one of many factors driving the decision making process in these areas
  - Overall, it does highlight the importance, when encouraging new household behaviours with environmental benefits, to establish more than just a link to greenhouse gas emissions
    - In line with current social marketing theory, links to a number of key personal emotional triggers (like saving money) and “rewards” for positive behaviour linked to greenhouse gas emission reductions may be the most appropriate strategy

“Do it for today” – “Feel more benefits tomorrow”

Personal Importance – Reducing Greenhouse Gas Emissions

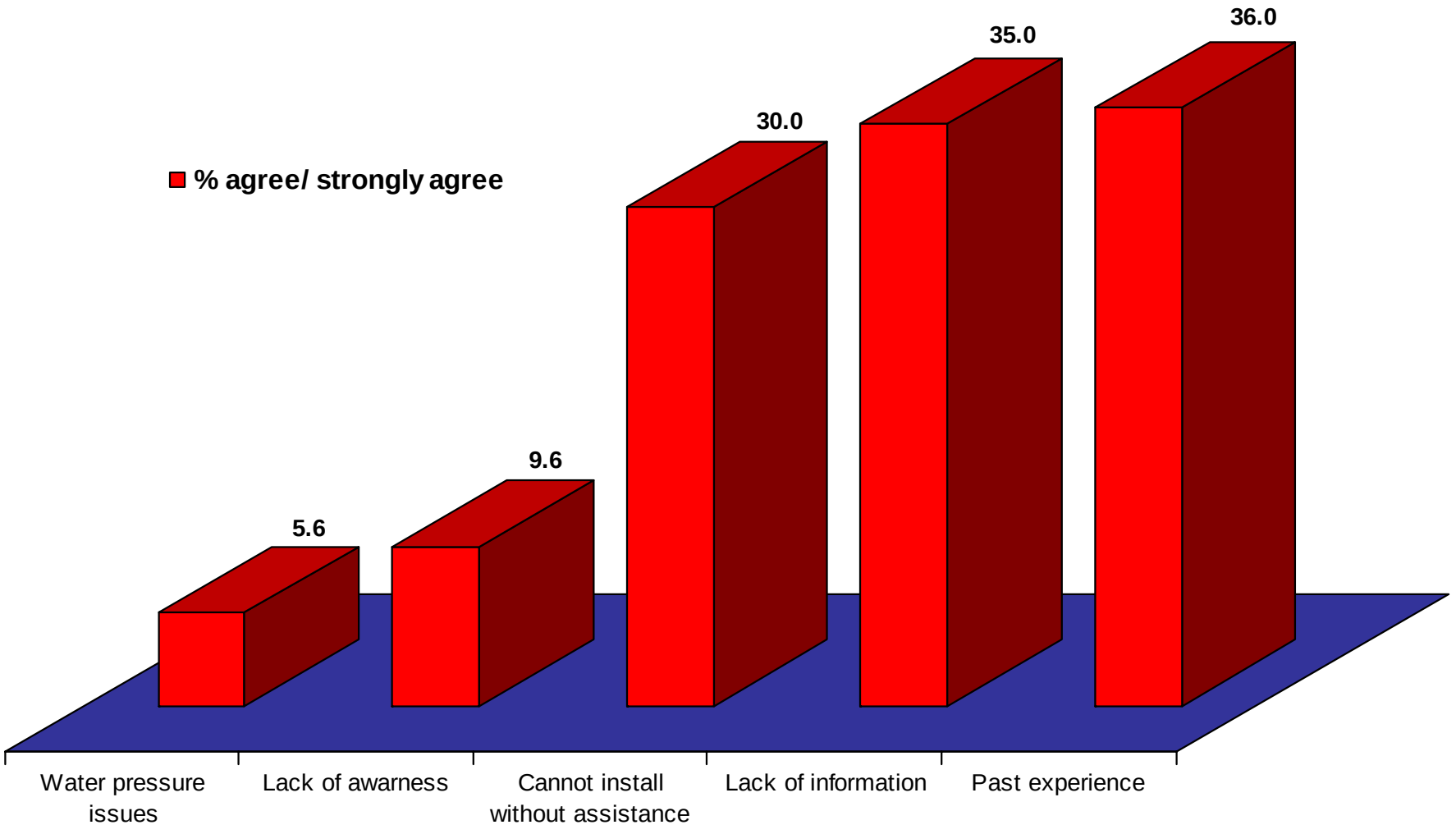


Water Saving Showerheads

Providing free water saving showerheads to residents may be one of the only effective ways to "break down" previous negative experiences

- Whilst most respondents were aware of water saving showerheads, only around 1 in 2 (44.6%) of "suitable" households (that is ones with a hot water storage unit rather than instantaneous) currently have them installed
- A **negative past experience** involving either reduced water pressure and/or changes to the temperature of the shower, along with a perception that **installation assistance** would be required and there generally being a lack of **information about how water saving showerheads** save water and energy are currently the strongest perceptual barriers (of those tested) across the Region
- Being provided with a **showerhead free of charge** would definitely motivate households to have one installed, along with information and demonstrations regarding how a water saving showerhead works and its water and energy household savings
  - There is, however, around 1 in 5 households for whom even a free water saving showerhead would not encourage a change in behaviour – they will potentially remain "unconverted" or be much more difficult to reach

Barriers to installing a water saving showerhead



Water Saving Showerhead Campaign

- A campaign seeking to encourage residents to install water saving showerheads therefore needs to include;

Break down the barriers

- De-emphasise any negative experiences – let people know that water saving showerheads are now much more advanced than earlier models – they don't have to compromise performance
- Stress that the process can be easy and quick to do – installation does not necessarily require a plumber or other professional

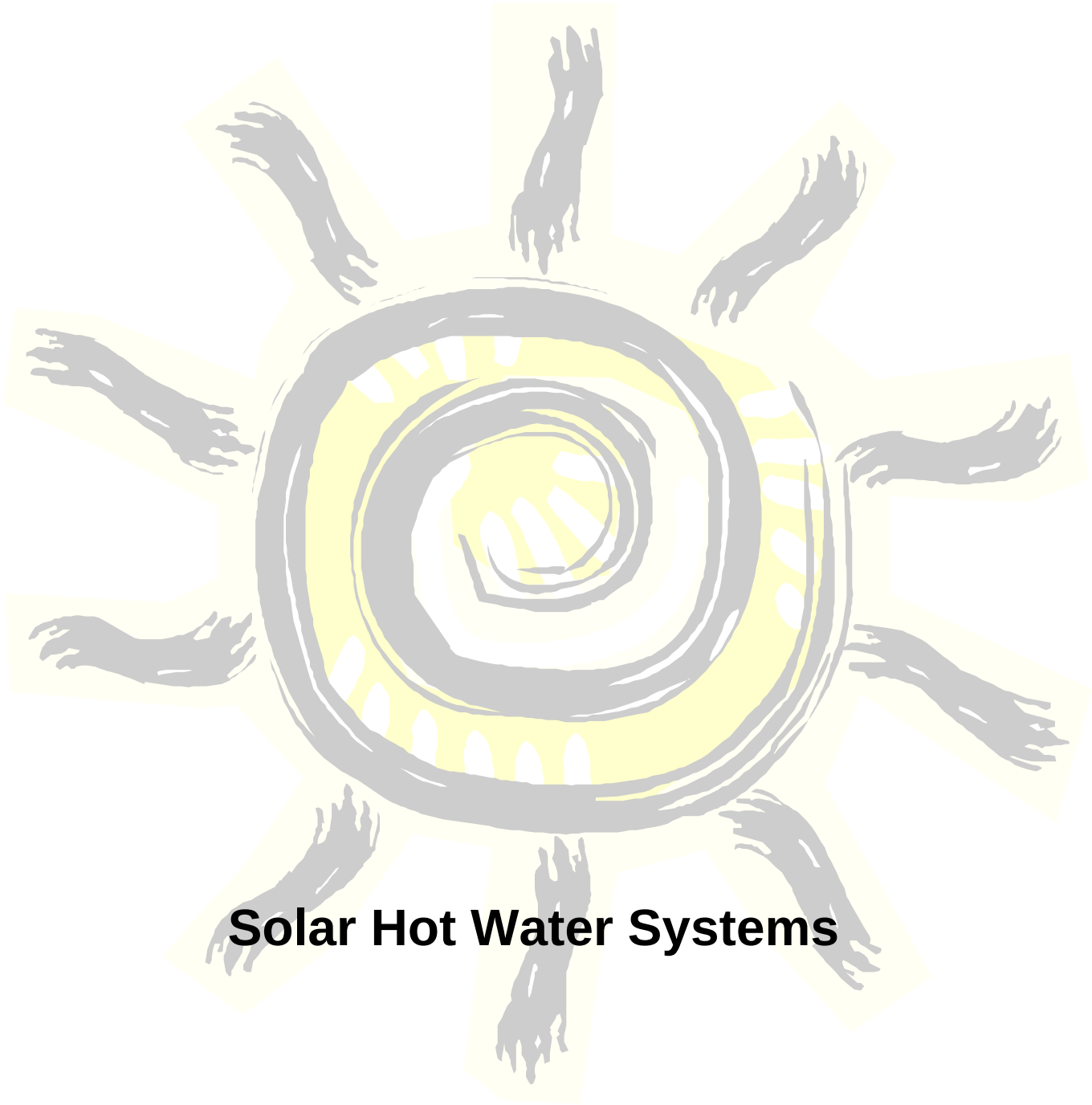
Emphasise the benefits/ Provide the proof

- Let people know SPECIFICALLY the level of water and energy savings that can be achieved with a water saving showerhead (information campaign)
- Provide demonstrations (perhaps at local shopping centres) comparing conventional and water saving showerheads
- Conduct a small trial to measure the impact of providing free showerheads to households (measuring installation rates, water usage etc)
- For those not included in the trial, include some testimonials in the information campaign from people "who have made the change" – stressing water pressure and temperature issues

Reward positive behaviour

By congratulating people for installing a water saving showerhead;

- Messages on gas and electricity bills that talk about how much can potentially be saved (or has been saved) with a simple change to the showerhead type
- Messages regarding the level of greenhouse gas emissions in the area and the impact of installing a water saving showerhead – they can make a difference!

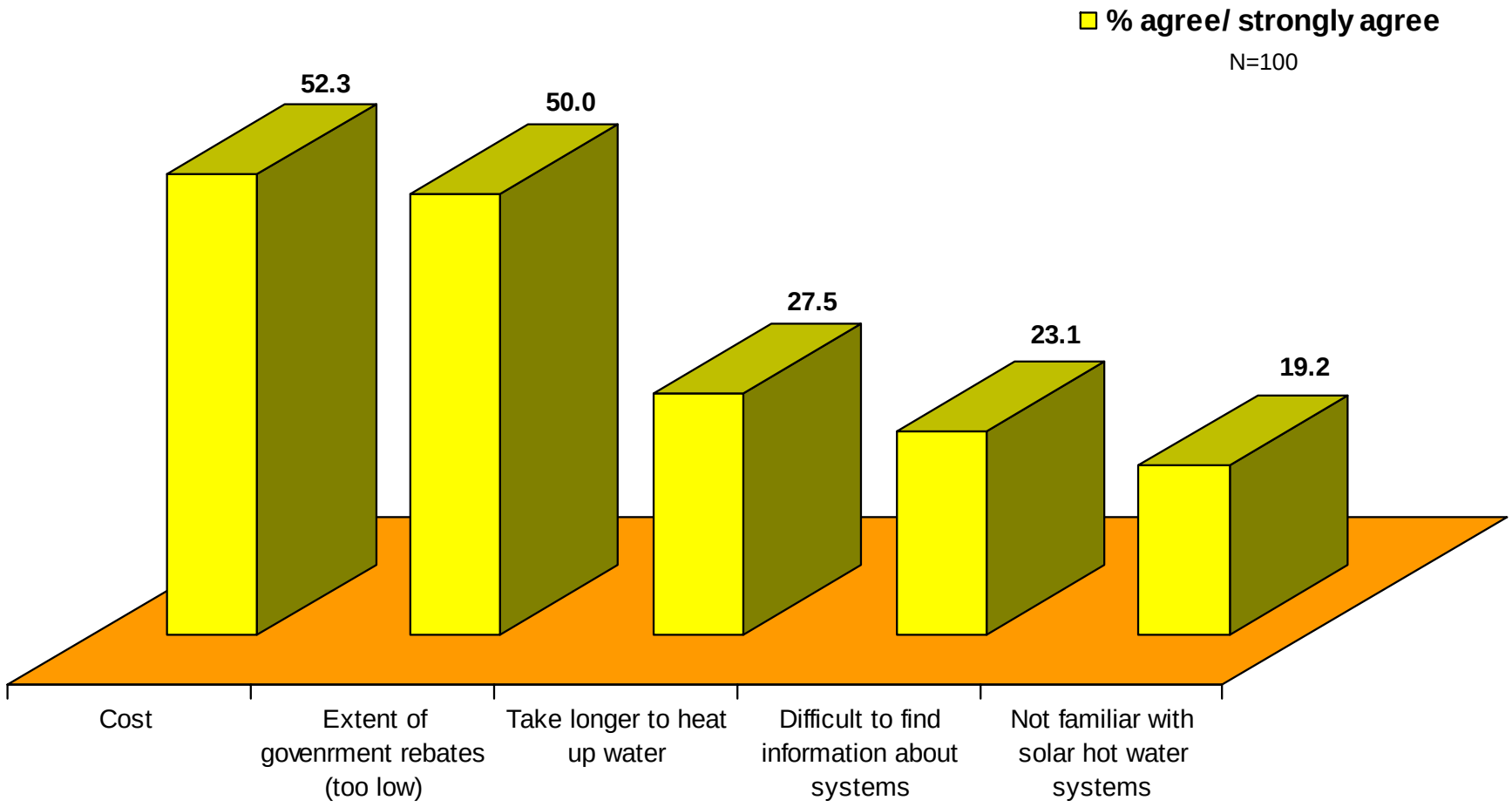


Solar Hot Water Systems

For solar hot water systems, awareness and cost are key issues

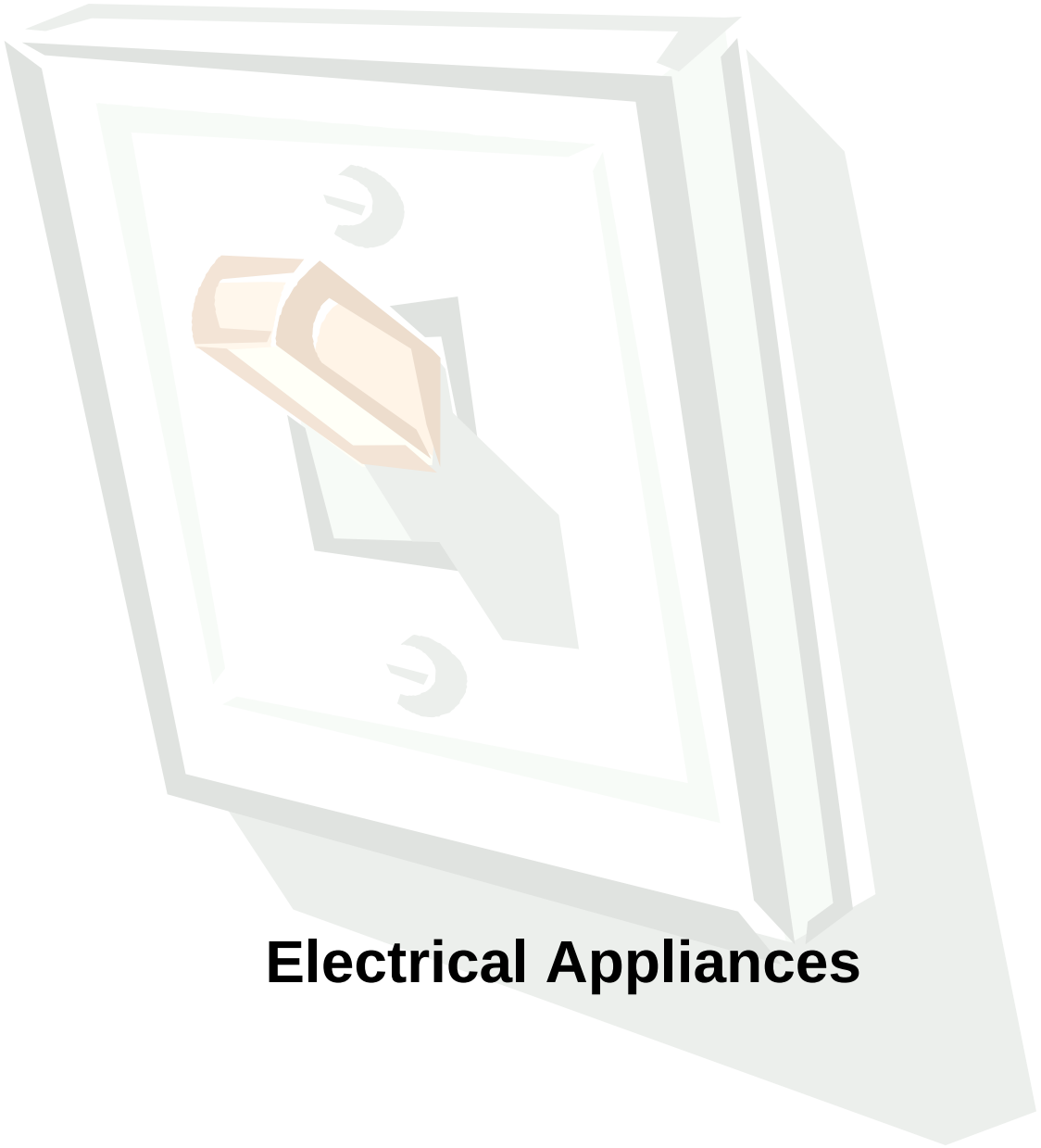
- The most **prevalent types of hot water systems across the region are gas** – storage (38.5%) and instantaneous (35.2%)
  - Around 1 in 5 (18.7%) households across the Region currently have a solar hot water system installed – slightly higher than the metropolitan average, most likely due to the large number of new homes/suburbs across the area
- The decision to purchase a solar hot water system above others is currently constrained by **awareness and cost**
  - **There is still a level of general confusion regarding;**
    - The way a solar hot water system operates compared to other types of systems (eg the length of time to heat up water)
    - The COMPARATIVE cost of a solar hot water system
    - The government rebate system

Barriers to purchasing a solar hot water system



For solar hot water systems, awareness and cost are key issues

- **A campaign to encourage additional installations of solar hot water systems will therefore need to include;**
  - **Additional lobbying** of the State and Federal Government to continue and publicise the availability of solar hot water rebates
  - **Efforts to encourage project home builders** (like Dale Alcock) to continue with the inclusion of solar hot water systems as “standard” in new homes
  - **A general brochure/direct mail based campaign** (perhaps in conjunction with State and Federal Governments) providing information specifically COMPARING solar hot water systems to other units in a range of areas including;
    - Price – short and long term comparisons, including the rebate system and potential savings on gas and electricity bills
    - Features – eg. length of time to heat water, storage capacity etc
    - Greenhouse gas emission and other environmental factors (the long term reward)

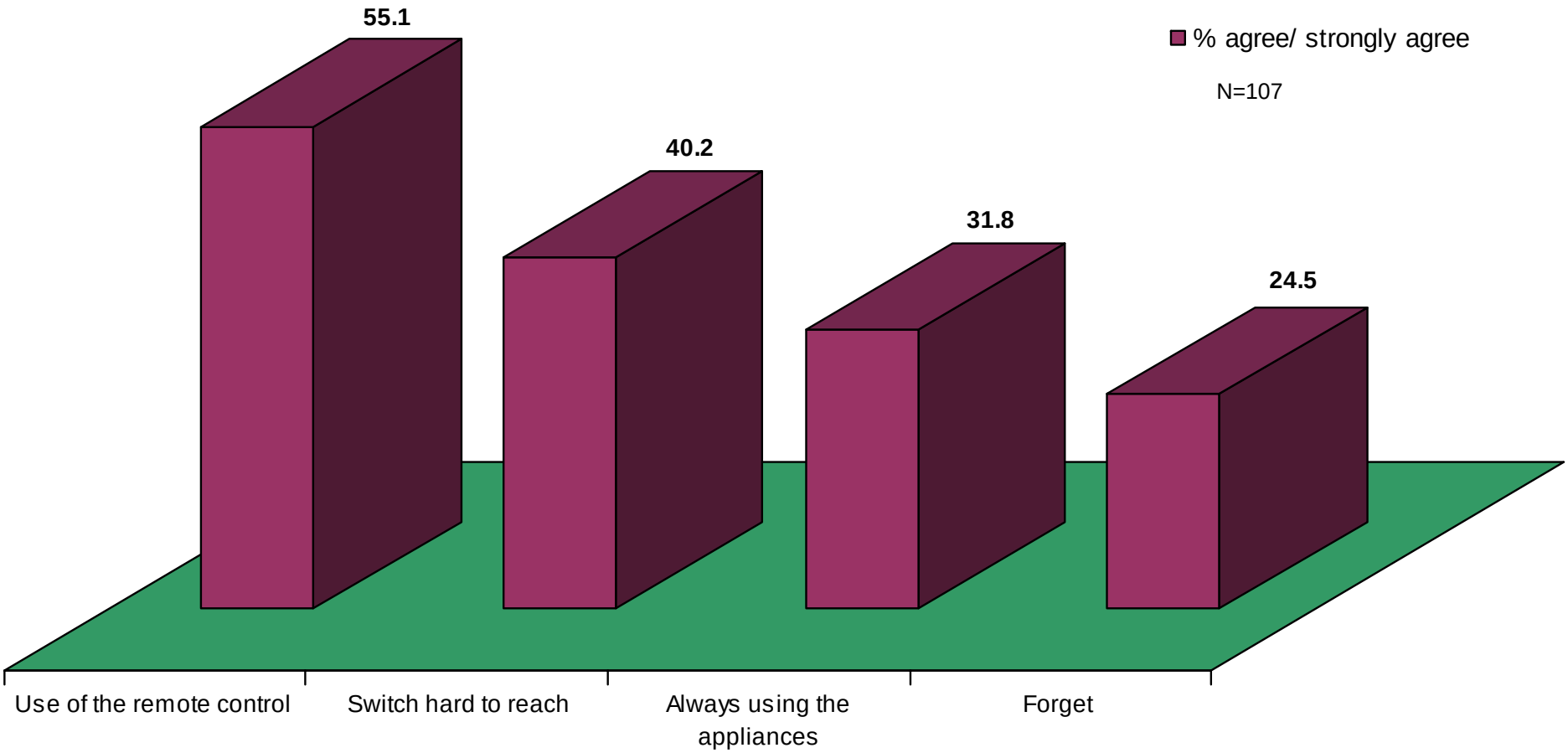


Electrical Appliances

Turning electrical appliances off “standby” may potentially be the hardest behaviour to “convert” because its all about convenience

- Around **4 in 10 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
  - The strongest barriers to completely turning off electrical appliances include;
    - Use of the remote control
    - The switch being hard to get to (behind furniture etc)

Barriers to turning off electrical appliances



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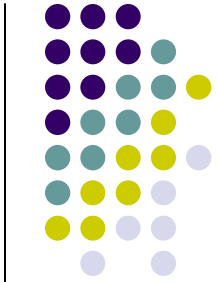


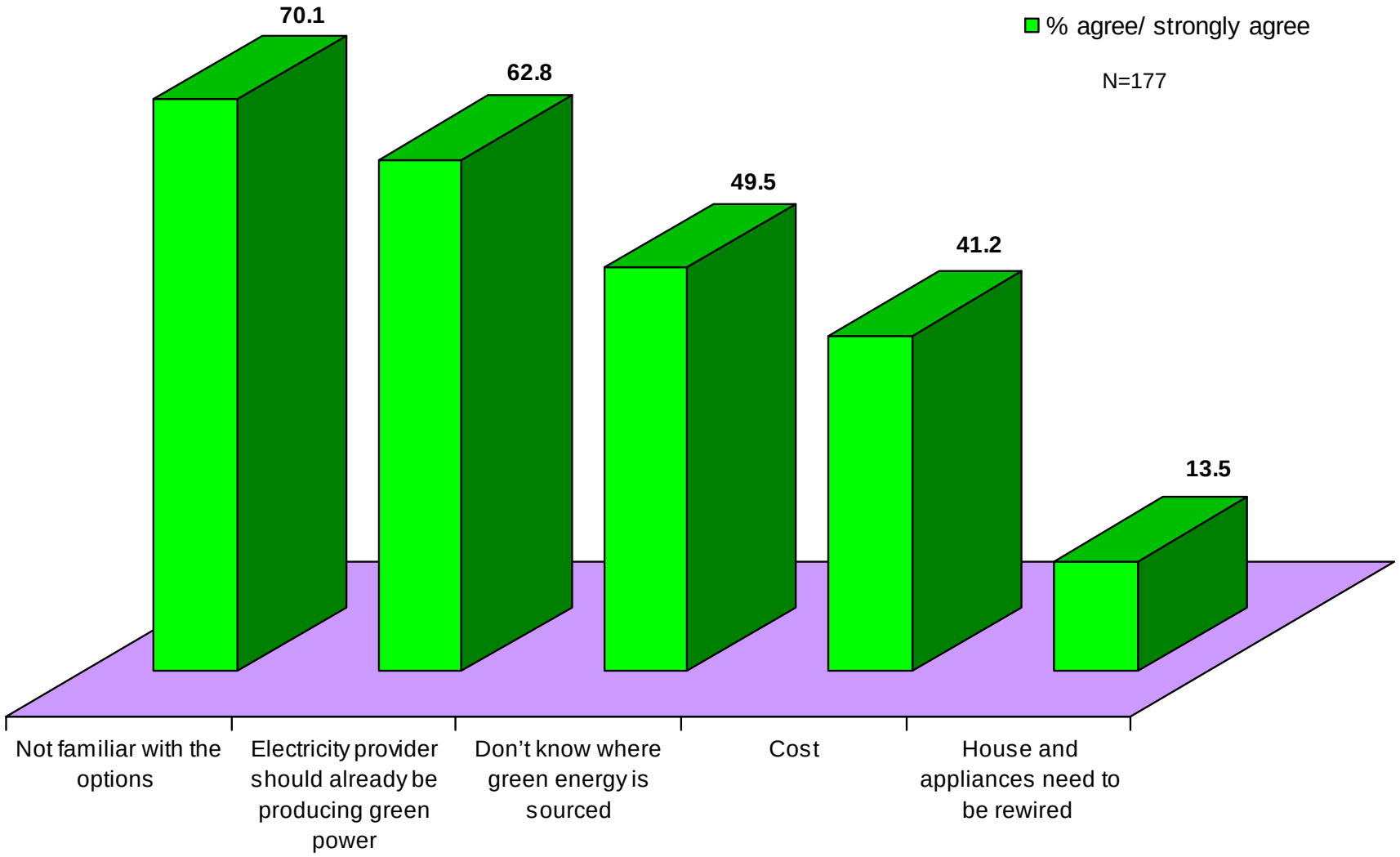
- Changes in behaviour in this area may therefore be more gradual, given the benefits associated with turning off appliances need to overcome the “convenience” factor which is very strong given its association with current lifestyles
- There may be some potential to begin building awareness through a **retailer based campaign, where large electrical retailers like Harvey Norman, Retravision, Betta Electrical, Target, Kmart, JB HiFi** supply information to people purchasing new electrical appliances (particularly televisions, stereos, DVD players etc) regarding the benefits of switching off from standby power, stressing the potential electricity savings

NaturalPower

Awareness of the NaturalPower Program is reasonable, however conversion rates are still low

- Whilst almost **1 in 3** respondents across the region are currently **aware** of the NaturalPower Program offered by Synergy, **only 3.5% are signed up to the program**
- Key **barriers** to "sign up" include a **lack of familiarity** with the program, along with a feeling that electricity companies should also be playing their "part" and **providing energy from renewable sources as part of normal operations**
- Perhaps related to a **lack of familiarity** is a **strong focus on price** as a motivator to change behaviour;
  - 73.3% of respondents felt that a **significant reduction in the cost of the program** would either strongly or very strongly encourage their decision to sign up to the program
  - 50.0% of respondents felt that the **availability of discounted appliances** as part of the program, along with tips on how to reduce electricity bills would either strongly or very strongly encourage their decision to sign up to the program

Barriers to the NaturalPower Program



Awareness of the NaturalPower Program is reasonable, however conversion rates are still low

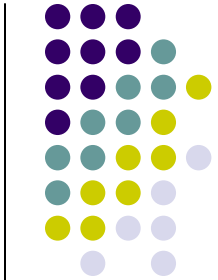
- With this in mind, **building awareness of the program** will be the critical first step
- The use of NaturalPower is also a behaviour that does require an investment (increased electricity costs) without a strong personal short term return - like saving money on electricity or gas bills which are the short term gains of the other behaviours explored
  - Establishing and then building awareness of a link to greenhouse gas emissions may therefore be the most appropriate strategy, although it will need to have targets in the medium to long, rather than short term
- **Some possibilities for an awareness building campaign include;**
  - **Offering special screenings or discount vouchers to hire/purchase DVDs** of *"An Inconvenient Truth"* – the recent documentary film about climate change, especially global warming, narrated by Al Gore - Synergy have reported a recent "spike" in NaturalPower sign ups believed to be attributable to the release of this film

Awareness of the NaturalPower Program is reasonable, however conversion rates are still low

- **The development, in conjunction with Synergy, of an awareness building program that includes;**
  - A **special newsletter** delivered to households across the Region by direct mail (rather than accompanying an electricity bill as these items can often be overlooked with a focus on the payment required)
    - This newsletter could potentially include a NaturalPower sign up “target” for the region that could be monitored and reported back to the community on a regular basis
  - **Shopping centre displays**
  - **Talks at community and business groups** – like Rotary, Lions, Playgroups, Seniors Groups – to encourage both individual sign up to the Program and potentially the group “adopting” the cause and further promoting its benefits throughout the community
- This strategy could be accompanied by further discussions with Synergy (based on the results of this research) to **explore the feasibility of a discounted appliance program to accompany NaturalPower Program sign up**

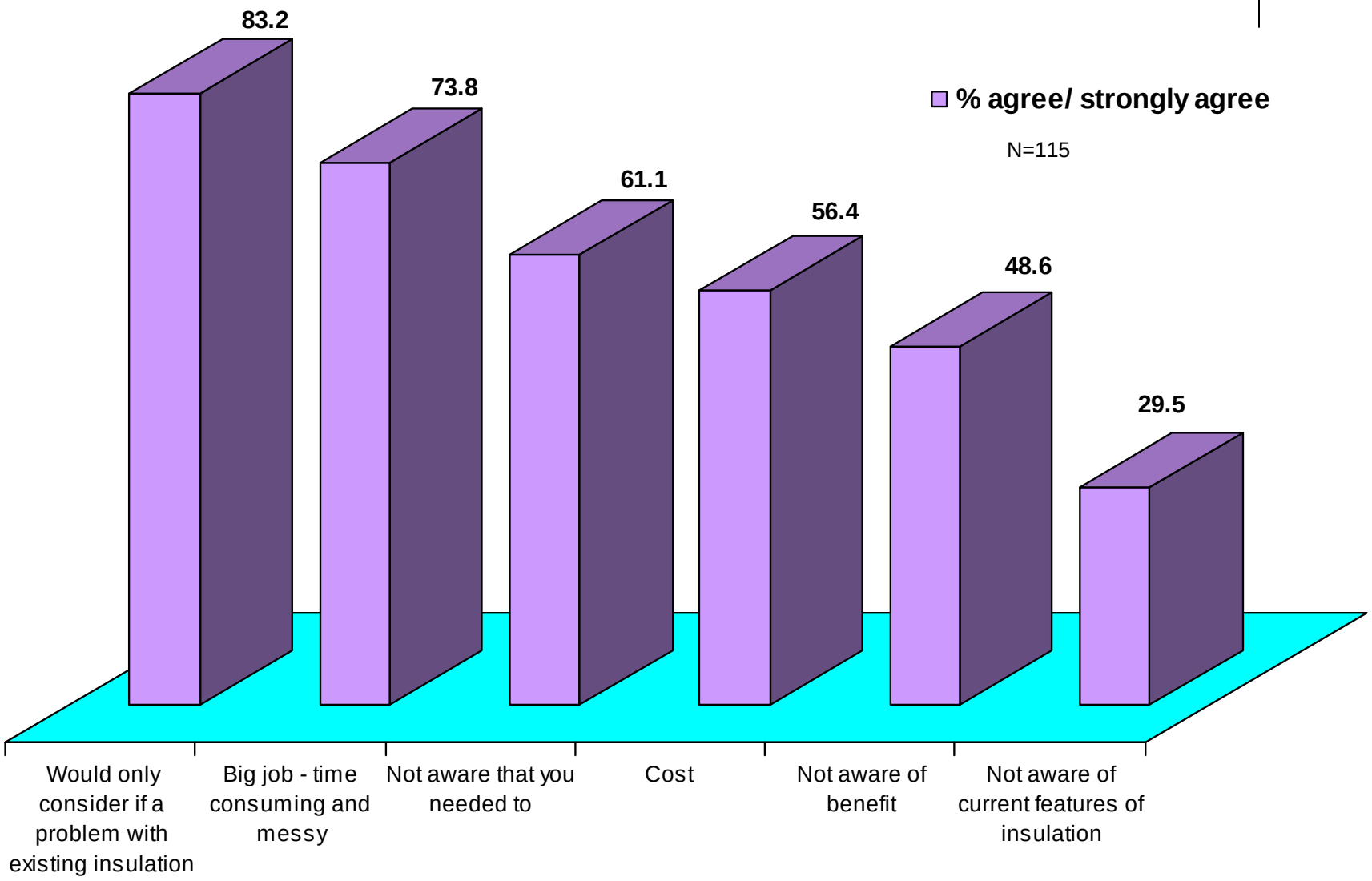
Roof Insulation

For roof insulation, its all about convincing residents that there is a need to install and upgrade



- Currently almost 9 in 10 owner occupied households across the region (87.8%) report to have roof insulation installed
    - Roof batts and fibre/ fibrous material are the most prevalent types installed
- Once installed, however, roof insulation appears to be “set and forget” with the strongest barrier to homeowners upgrading insulation being the identification of a problem or issue with what’s already installed
- For new installations, cost and time constitute the strongest barriers

Barriers to upgrading roof insulation



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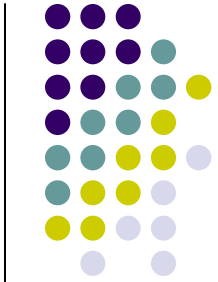
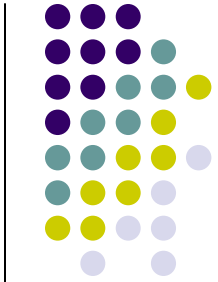


- With these results in mind, gradually building awareness of roof insulation features and how they contribute to saving energy and money on heating and cooling bills needs to occur- perhaps as part of a broader **household energy savings information campaign** through various channels (including community newspapers as described later)
  - This could potentially be followed by a strong call to action, encouraging residents to check their existing insulation (with how to instructions) and providing a simple step by step calculator to determine the expected savings (energy and costs) associated with an upgrade

Shading of external east/west facing windows

East and west facing windows are an issue for around 1 in 4 homeowners however there's a strong belief that internal blinds and curtains are currently sufficient

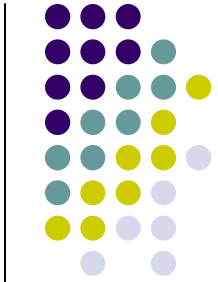


- Whilst there is a level of concern regarding sunlight and heat entering the home through **unshaded east and west facing windows** - for the 1 in 4 homeowners reporting to be affected, internal blinds and curtains are the "solution" for the majority (54.3%)
  - Other issues like the cost of external 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 include window tinting and roller shutters**
  - There may therefore be some potential for the SMRC to lobby the State or Federal Government for the provision of rebates (as for solar hot water systems) to subsidise the cost of these types of external window shading

Some final thoughts

- Given many of the recommendations presented in this report address gradually building awareness/ educating the community regarding the benefits of the household behaviours explored, one of the most effective ways of distributing information may be through a regular "**Greenhouse" column** in Community Newspapers distributed across the Region
- The column has the potential to **build on the increasing profile of climate change and greenhouse gas emissions and then clearly establish links for individuals in relation to activities around the home**
  - Given that there is not yet a strong connection between the importance of reducing greenhouse gas emissions and household activities (or a more complex decision making process) the column will also need to reinforce the short term personal benefits (like saving money) associated with each behaviour or action
    - *"Do it for today" – "Feel more benefits tomorrow"*

Some final thoughts

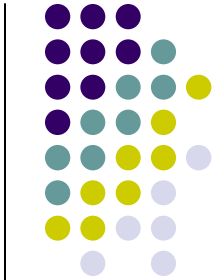


- The column may also provide the opportunity to **publicise and monitor greenhouse gas emission "targets" for the Region** – to build feelings of a team or community based approach to the issue which may encourage greater action

- It could potentially **be supplemented by shopping centre displays** (focusing on demonstrations and interactive experiences) and guest presentations to community groups (as described previously) to reinforce the message

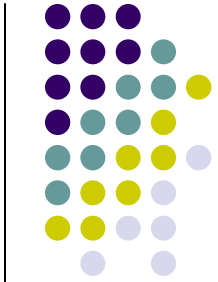
Detailed Results

The importance of reducing greenhouse gas emissions to individuals



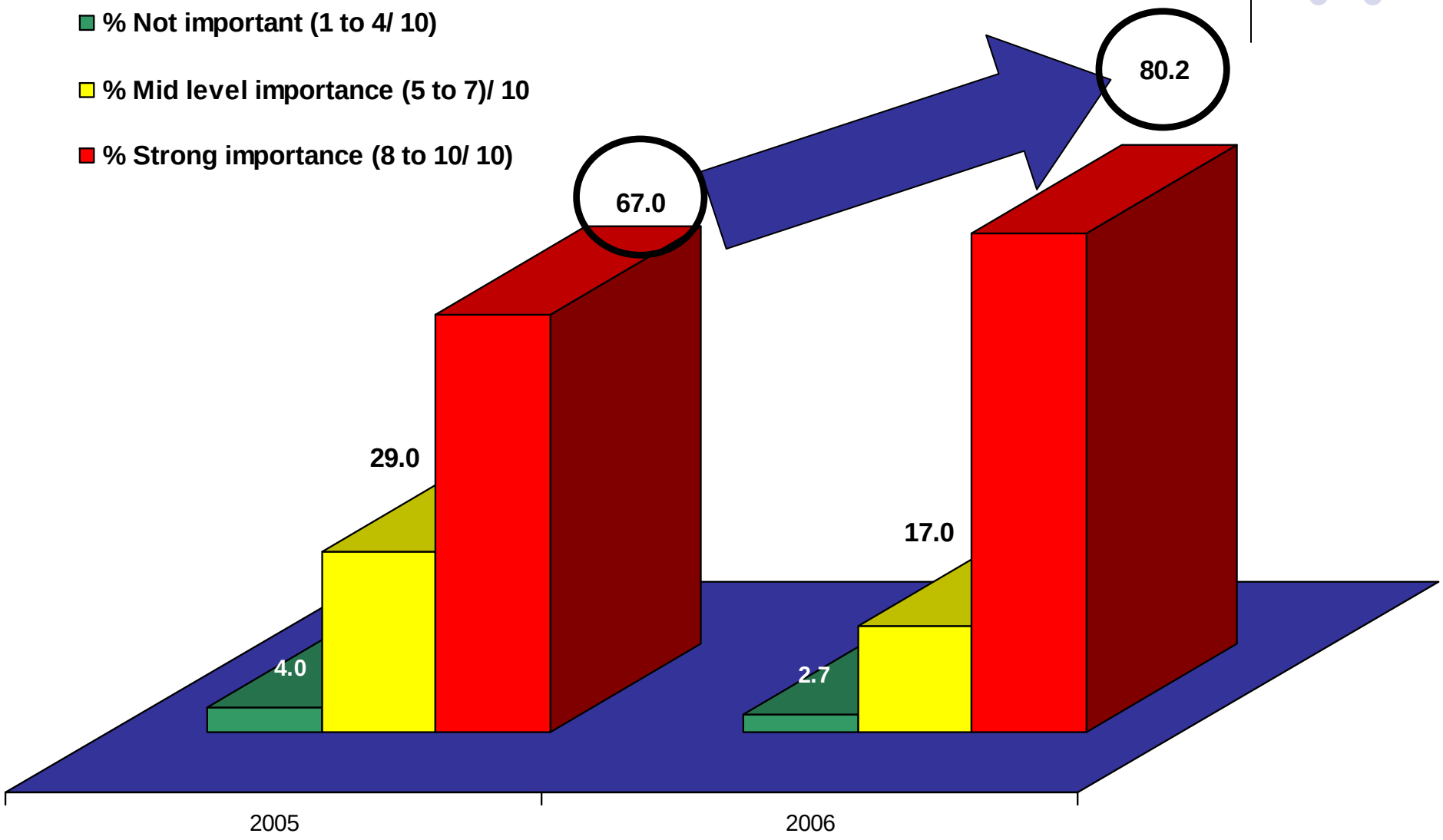
- This year we have seen a significant increase in the reported importance of reducing greenhouse gas emissions to individuals, in comparison to similar studies completed in 2004 and 2005
- In 2006;
  - 80.2% of respondents feel the issue is very to extremely important (8.9.10 on a 10 point scale) in comparison with 67.0% who felt this way in 2005 and 2004
- In 2005 there was some indication that the issue was more important to older residents and females
    - This year, whilst gender does not significantly affect results, residents over 40 are significantly more likely to feel that the issue is important (85.9%) in comparison with those under 40 (74.4%)
  - There were also some significant differences this year based on where people live;
    - Respondents from the Cities of Canning (69.2%) and Rockingham (73.9%) are significantly less likely to feel that reducing greenhouse gases is important in comparison with respondents from the City of Cockburn (93.8%) and Town of East Fremantle (100.0%)

The importance of reducing greenhouse gas emissions to individuals

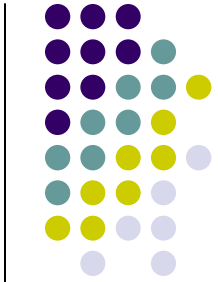


- Overall, it is felt that this increase in levels of personal importance is due to the **increasing profile** of greenhouse gas emissions generally, with;
  - Recent policy and funding statements being made by the Federal Government
  - Initiatives like “cooling the globe” being introduced by high profile popular television programs including Channel 7’s Sunrise Program (www.cooltheglobe.com)
  - Recent films including “An Inconvenient Truth” – a high profile documentary hosted by Al Gore, profiling the impact of greenhouse gas emission on the world environment

Personal Importance – Reducing Greenhouse Gas Emissions



The importance of reducing greenhouse gas emissions to individuals



- Whilst there was an increase in the importance of reducing greenhouse gas emissions generally, as for 2005 there was no evidence of this importance really driving the behaviours explored in this study –most likely indicative of a combination of factors, including a lack of awareness of the positive environmental contribution of these behaviours and the decision making process for the actual behaviours being a more complex process with a number of factors (rather than just the importance of the environment) involved
  - ie. Respondents were no more likely to have a water saving showerhead, roof insulation, a solar hot water system or completely turn off appliances if they felt greenhouse gas emission reduction was extremely important

Water Saving Showerheads

Using Water Saving Showerheads

- Overall, the use of water saving showerheads by respondents from the SMRC region is quite mixed, with;
  - 44.6% of respondents saying that they currently have a water saving showerhead installed in their home
  - 55.4% saying that they do not
- Installation of a water saving showerhead does not vary significantly by age, living arrangements (renting or purchasing a home) or where people live

Please note: *This question was only asked of those respondents who currently have a storage based hot water system – those with a continuous system (gas or electric) which is generally not suitable for the installation of a water saving showerhead (due to water pressure and temperature issues) were not asked the suite of water saving showerhead questions*

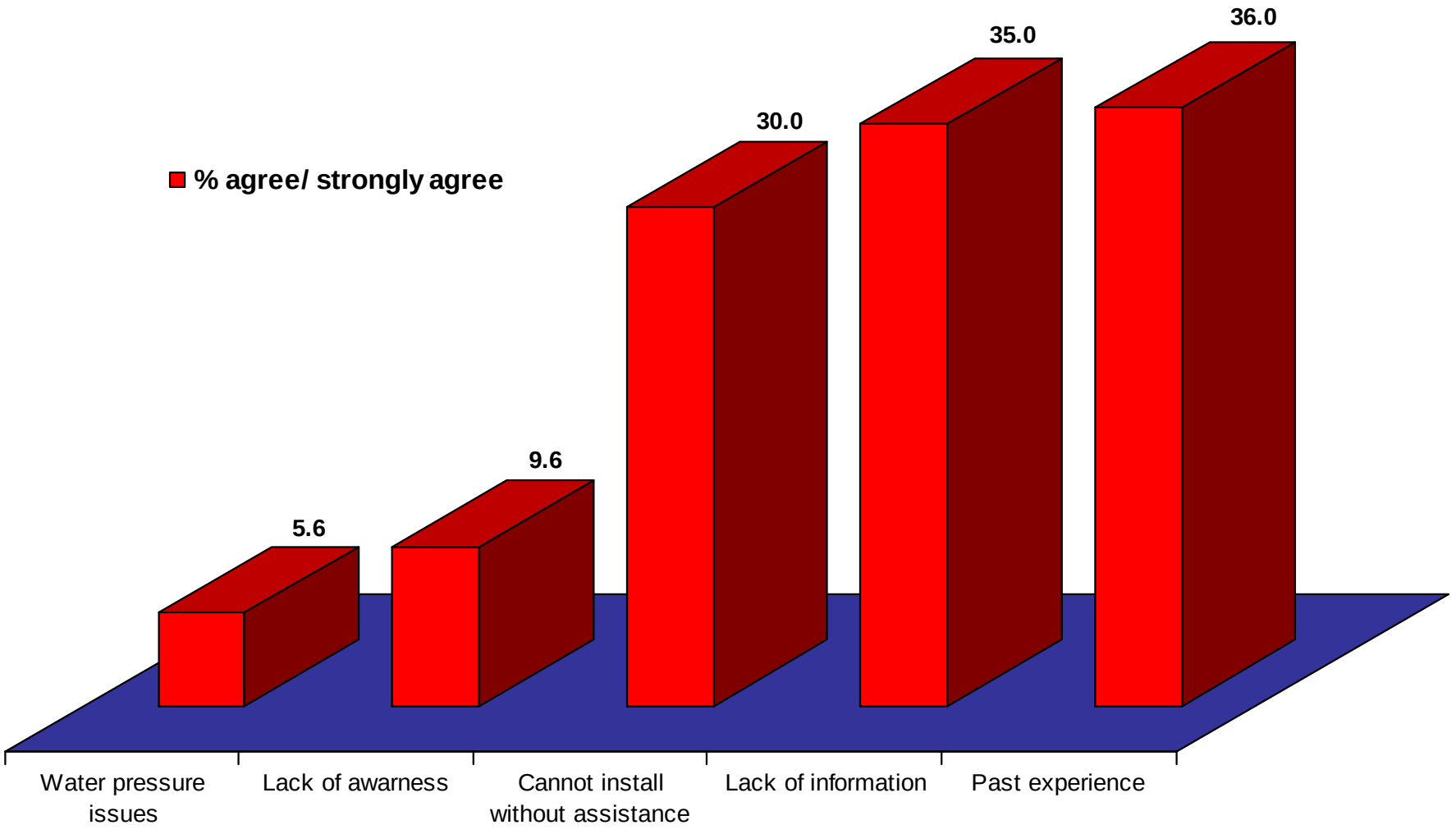
Barriers to the installation of a water saving showerhead

- Those respondents who had NOT installed a water saving showerhead were asked to rate how strongly they felt a series of barriers prevented them from doing so..
- Overall;
  - A group of strong barriers were identified, related to three key areas;
    - **A previous "negative" experience with a water saving showerhead** – 36.0% of respondents agreed or strongly agreed with the statement – my past experience with a water saving showerhead has been reduced water pressure and/or changes to the temperature of my shower
    - **Installation** – 30.0% of respondents agreed or strongly agreed with the statement – I wouldn't be able to install a water saving showerhead without assistance
    - **A lack of information** – 35.0% of respondents agreed or strongly agreed with the statement- there is not enough information about how water saving showerheads can save water and energy

Barriers to the installation of a water saving showerhead

- **This group was followed by (rated significantly less important);**
  - **A lack of awareness** – only 9.6% of respondents agreed or strongly agreed with the statement – I have never heard of a water saving showerhead before
  - **Water pressure issues** – only 5.6% of respondents agreed or strongly agreed with the statement – I cannot install a water saving showerhead because my water pressure is too low

Barriers to installing a water saving showerhead



Motivators for changing behaviour – installing a water saving showerhead

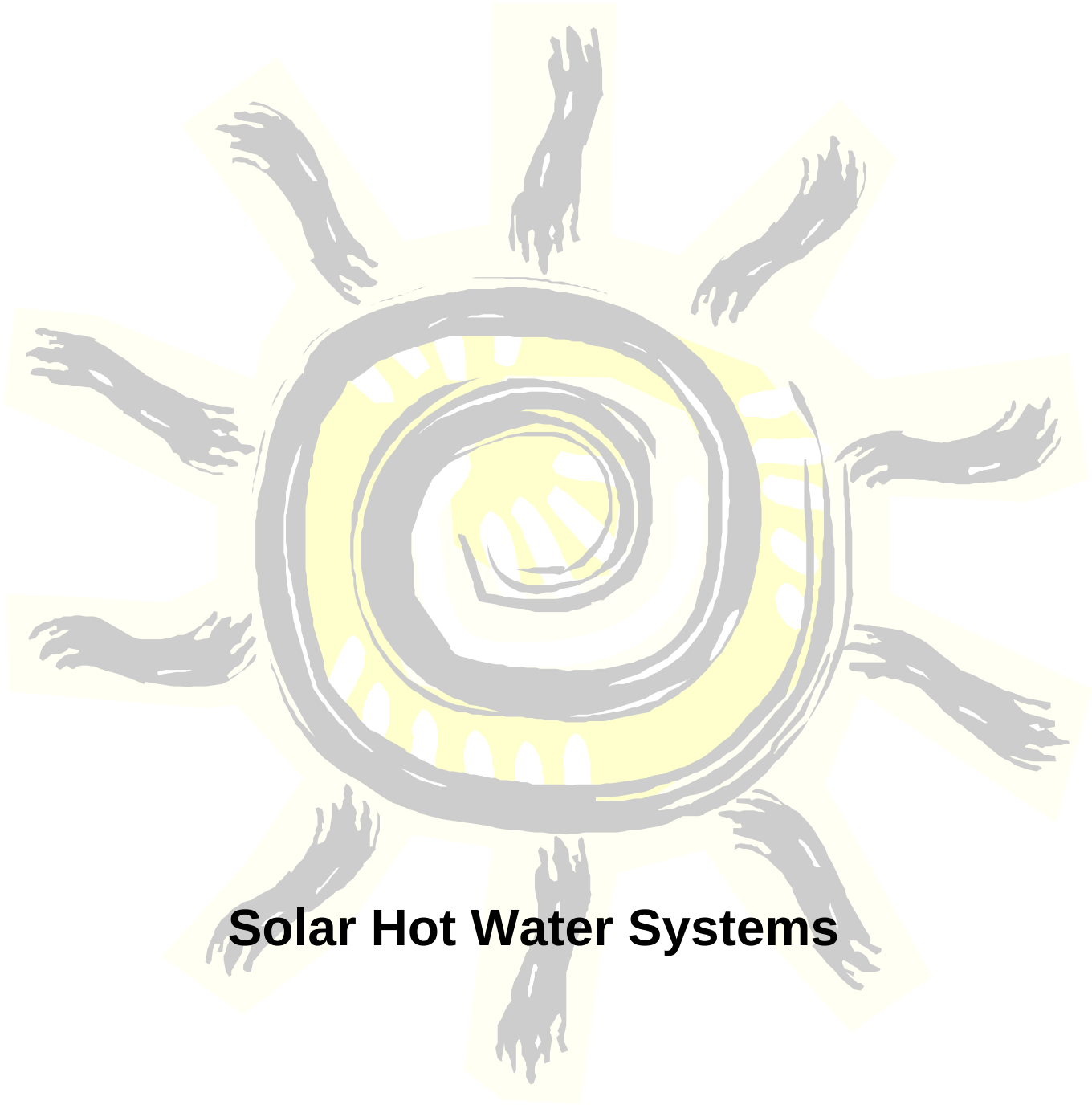
- Overall the **strongest motivator** for the “unconverted” (n= 120) to install a water saving showerhead was, as to be expected, **being provided with a showerhead free of charge for installation at home**
  - **61.3%** of respondents felt that this would either strongly or very strongly encourage their decision to install a water saving showerhead at home
    - Interestingly, **21.0% of respondents** felt that being given a water saving showerhead would not encourage them at all – indicating that there will be a section of the community which may remain “unconverted” or be very difficult to reach to change behaviour in this area

Motivators for changing behaviour – installing a water saving showerhead

- This was followed by a group of motivators, each equally as likely to encourage a change in behaviour;
  - Receiving **information that shows the energy and water savings** of using a water saving showerhead (40.9% strongly or very strongly encourage)
  - A **demonstration of different types of water saving showerheads** to see the difference in water pressure and temperature control (40.3% strongly or very strongly encourage)
  - **Receiving information** on the **most effective water saving** showerheads (32.3% strongly or very strongly encourage)
- To a lesser extent, being shown **how to install** a water saving showerhead at home would encourage a change in behaviour for around 1 in 5 respondents (21.4% strongly or very strongly encourage)

Motivators for changing behaviour – installing a water saving showerhead

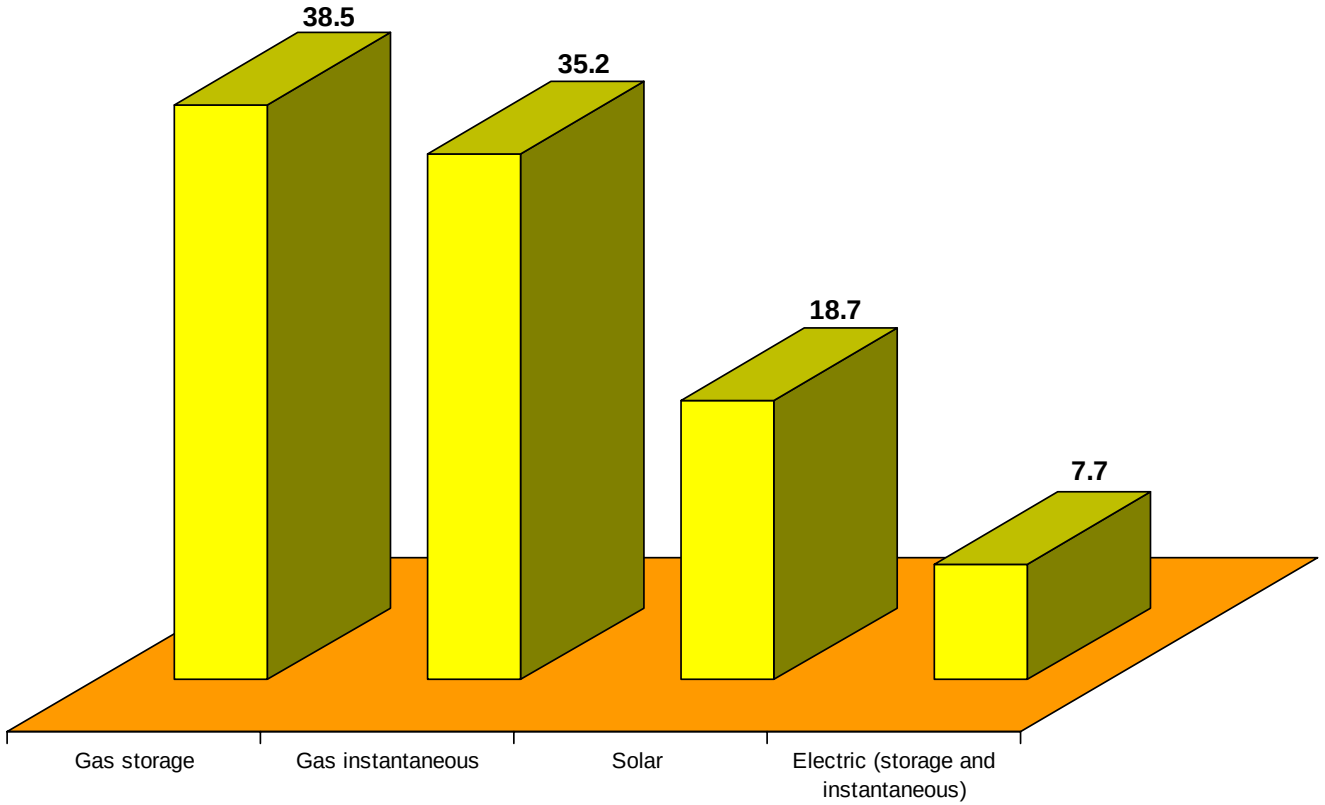
Motivator	% strongly or very strongly encourage (n=120)
Being given a free water saving showerhead for my home	61.3
Receiving information that shows the water and energy savings of using a water saving showerhead	40.9
A demonstration of different types of water saving showerheads to see the difference in water pressure and temperature control	40.3
Receiving information on the most effective water saving showerheads	32.3
Being shown how to install a water saving showerhead at my home	21.4



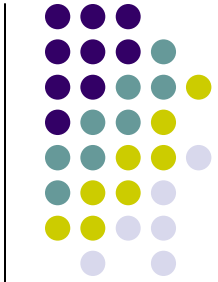
Solar Hot Water Systems

Types of hot water systems

- Results across the SMRC region are very consistent with those recorded in 2005
- Overall, gas systems (both storage and continuous) remain the most prevalent type of system installed, followed by solar and electric systems

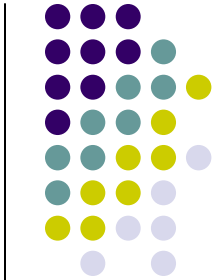


The Solar Hot Water Decision



- To further explore the hot water system decision making process and barriers to purchasing a solar hot water system, homeowner respondents (rather than those renting) who did **NOT** have a solar hot water system (n=100) were asked a series of questions related to;
  - Whether they had made the purchase decision in relation to the installation of their current hot water system
  - If they were aware of Government rebates currently available when purchasing a hot water system
  - How they felt about a series of potential barriers to solar hot water system purchase

The Solar Hot Water Decision

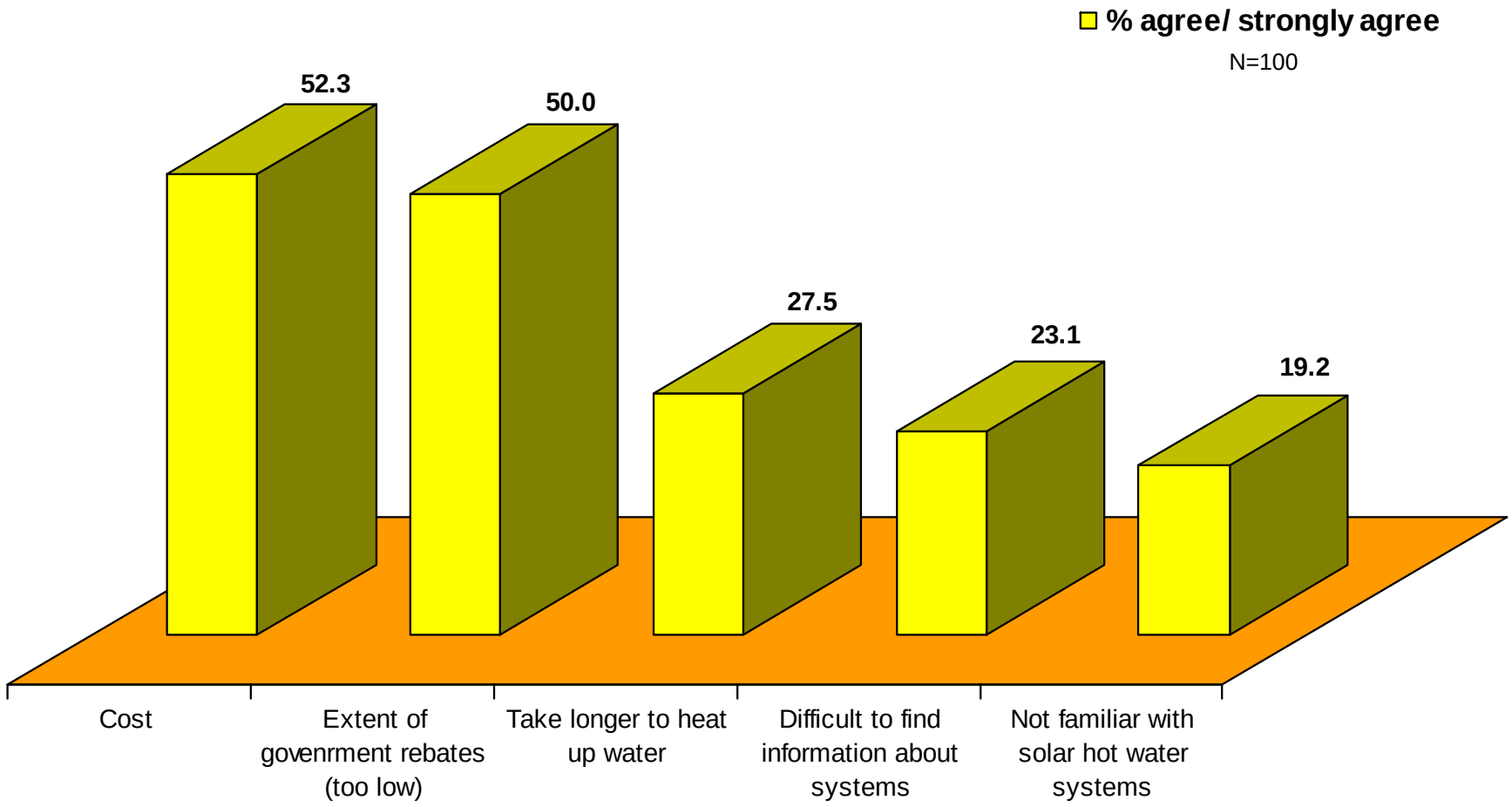


- Just over 1 in 2 respondents – 54% (from the 100 who met the criteria explained previously) had purchased their current hot water system – either when building the home or after purchasing the home, rather than it being there when they moved into the home
- Of these, awareness regarding the rebate system for the purchase of solar hot water systems was evenly divided – with 50% aware and 50% not aware that rebates are available

Barriers to the purchase of a solar hot water system

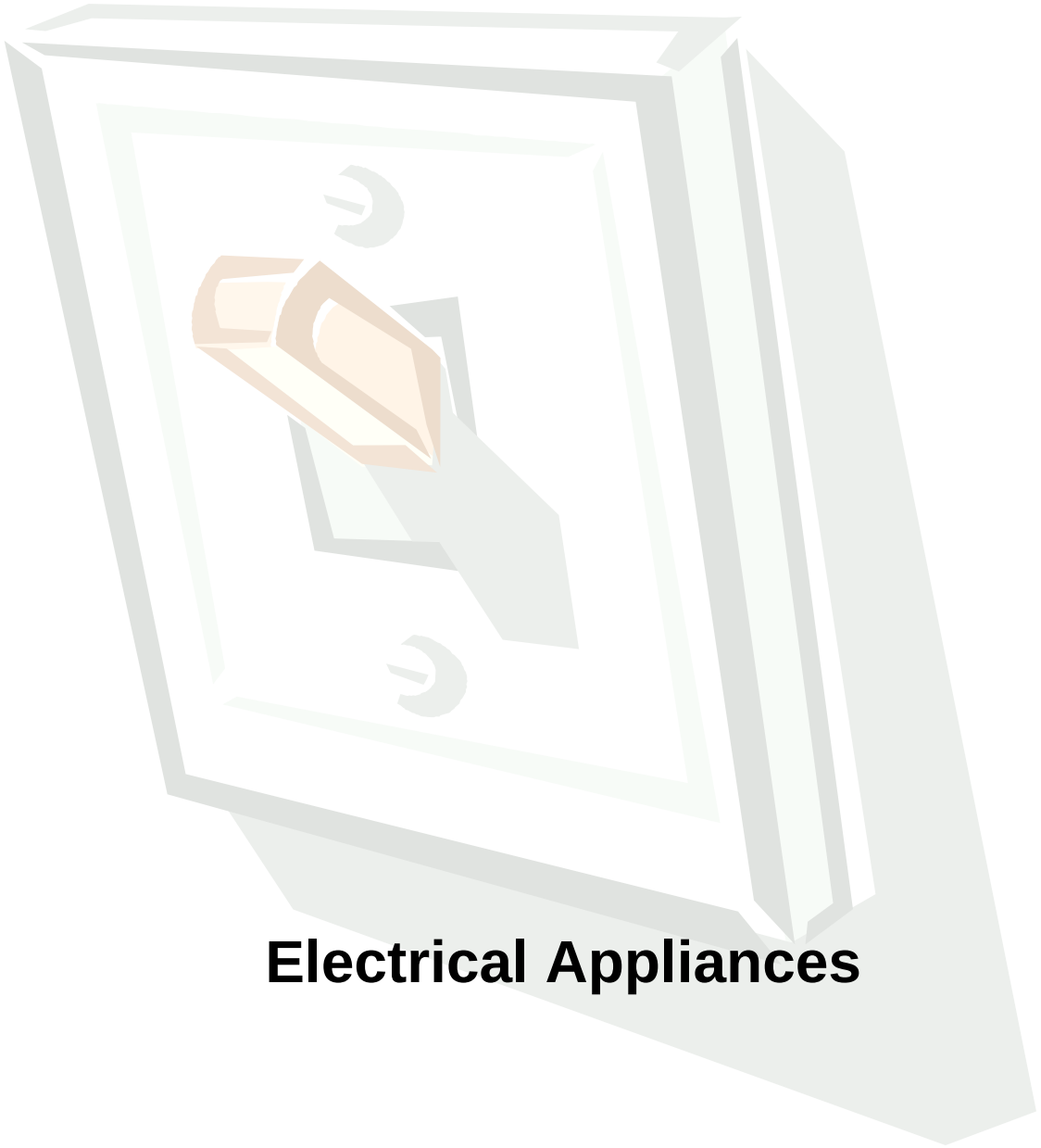
- Overall;
  - Solar hot water systems were generally considered to be **too expensive AND**, related to this issue, the **rebates offered** from the government (amongst those aware that rebates are available/ were generally considered **too low** to provide an incentive to purchase this type of system
  - This principal barrier was followed by the remaining three tested, each important to between 20 and 30% of respondents;
    - 27.5% of respondents (n=52) agreed or strongly agreed that solar hot water systems take longer to heat up water
    - 23.1% (n=52) of respondents agreed or strongly agreed that its difficult to find information about selecting a hot water system and how it can save power
    - 19.2% (n=52) of respondents agreed or strongly agreed that they are not familiar with solar hot water systems so it is difficult to even consider it as an alternative to what they have now

Barriers to purchasing a solar hot water system



Barriers to the purchase of a solar hot water system

- There was, however, a significant proportion of respondents who were unable to comment on the barriers tested;
  - 26.0% or 14 respondents did not know if solar hot water systems take longer to heat up water
  - 18.5% or 10 respondents did not know if solar hot water systems were too expensive
- Together these results do indicate that, whilst price is nominated as the strongest barrier to purchasing a solar hot water system, there is still some general confusion amongst the community in this area in relation to a range of issues including;
  - The way a solar hot water system operates compared to other types of systems (ie, comparative length of time to heat up water etc)
  - The COMPARATIVE cost of a solar hot water system
  - The government rebate system

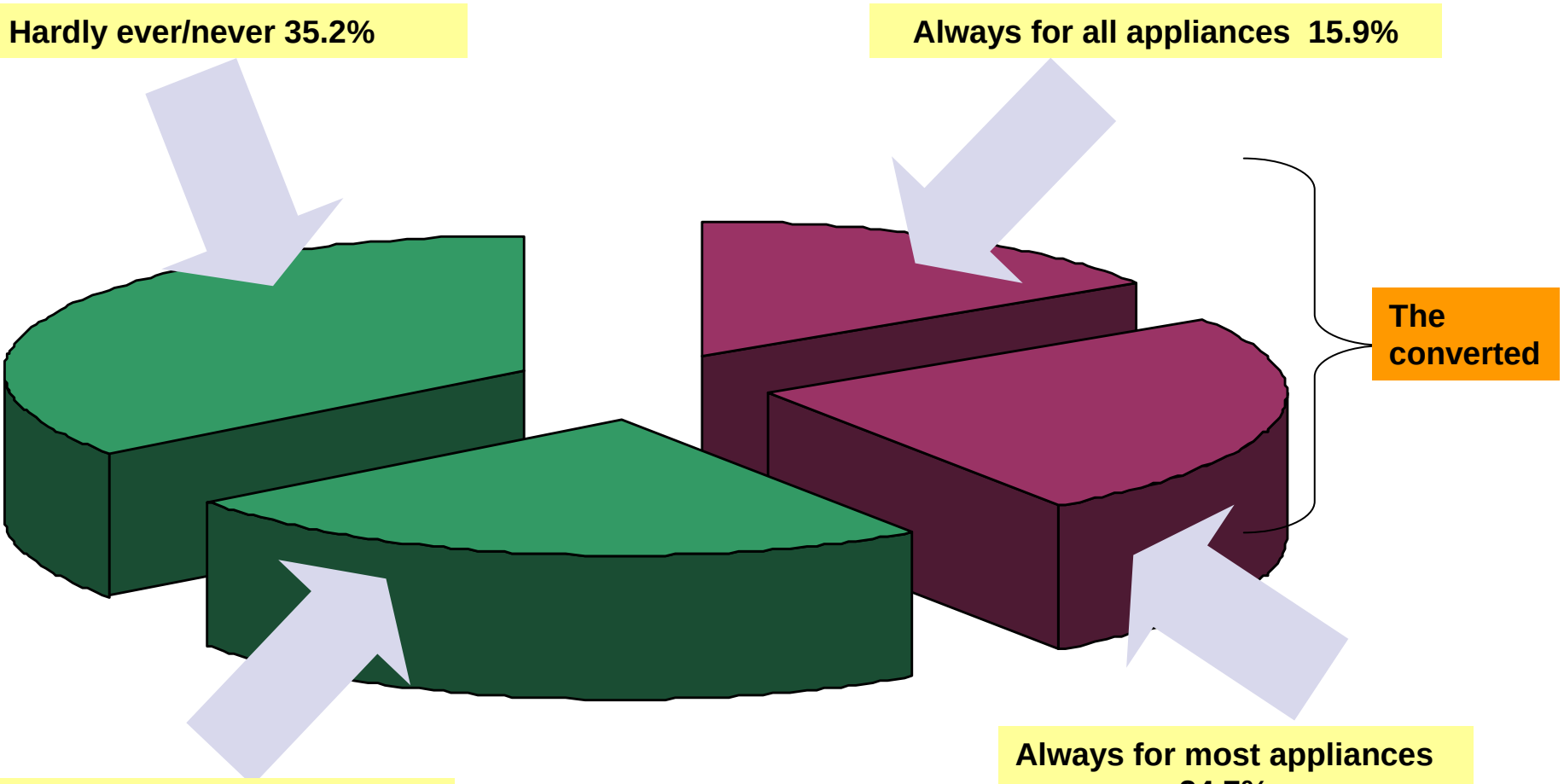


Electrical Appliances

Standby Switch Behaviour

- At present;
  - **Just over 40% of the community** (40.6%) can be considered “converted” to standby switch behaviour, always completely turning off appliances for most or all appliances, rather than leaving them on standby
  - **The remainder are divided between;**
    - Sometimes switching off most or all appliances 24.2%
    - Hardly ever/never switching off most or all appliances 35.2%

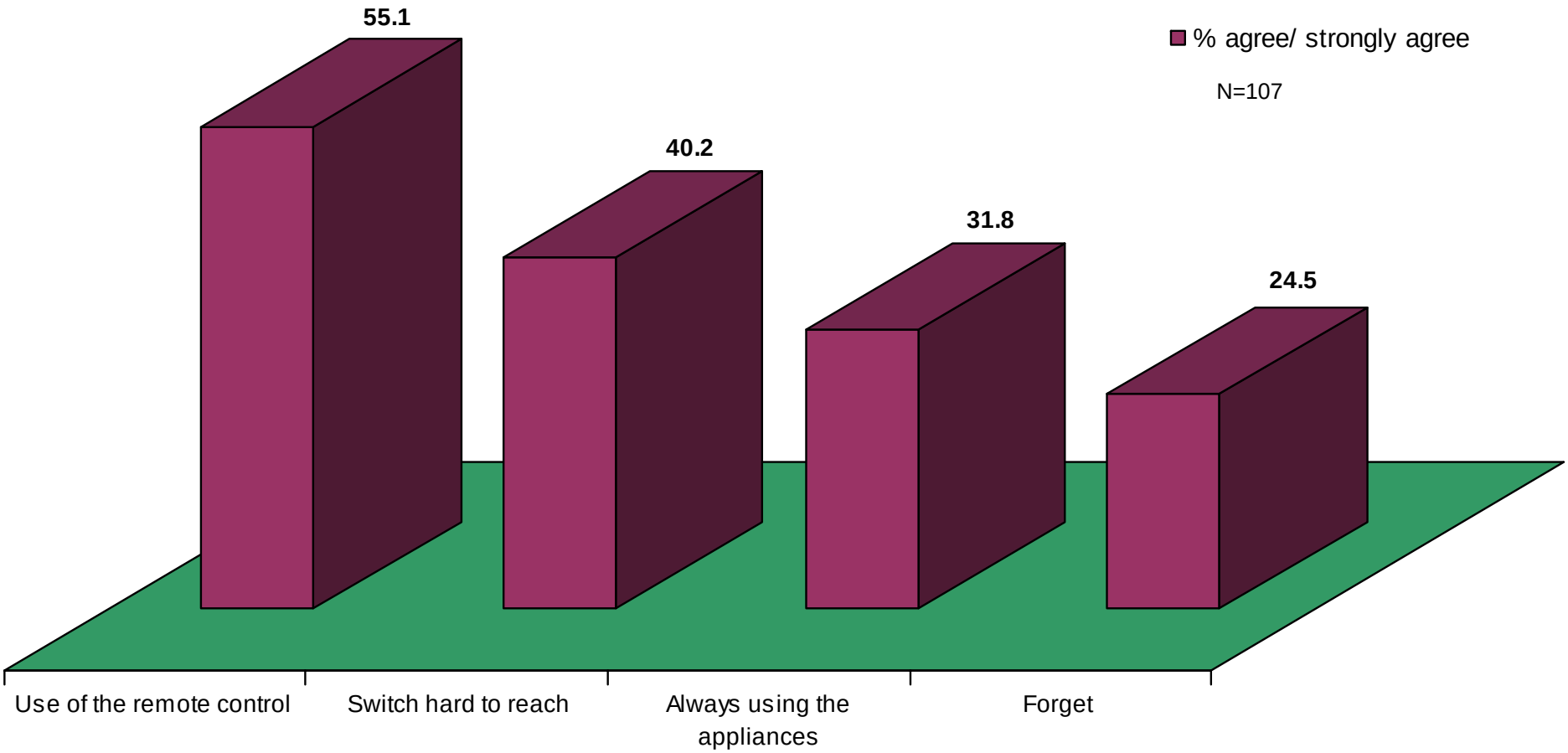
Standby Switch Behaviour



Barriers to completely turning off electrical appliances

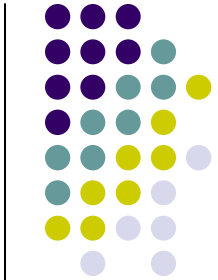
- Amongst the **“unconverted” (n=107);**
  - Its all about **convenience**
    - The strongest barriers to completely turning off electrical appliances rather than leaving them on standby include;
      - Not switching off the appliance at the wall so that the **remote control** can be used to turn appliances on and off – 55.1% agree/ strongly agree
      - The switch being **hard to get to** – 40.2% agree/strongly agree
    - **These barriers are followed by the remaining two tested;**
      - **Always using the appliances** – 31.8% agree/strongly agree (significantly less important than the remote control)
      - **Forget to switch off** – 24.5% agree/strongly agree

Barriers to turning off electrical appliances



NaturalPower

Current NaturalPower awareness and conversion levels



- **Overall awareness** of the NaturalPower Program can be considered “reasonable”, with around 1 in 3 respondents (31.3%) aware of the potential to purchase NaturalPower through Western Power/Synergy
  - The existing **“conversion” rate across the SMRC region is, however, very low,** with only 2 respondents (3.5% of the sample) currently signed up to the program
    - **Another 3.5% (or 2 respondents) did not know** if their household was signed up to the program

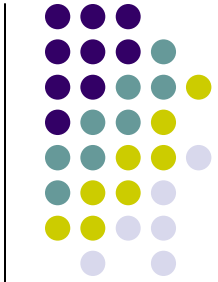
Barriers to signing up to the NaturalPower Program

- Overall, **the strongest barriers** to signing up to the NaturalPower Program include a lack of familiarity with the program and a feeling that electricity companies should be sourcing energy from renewable sources “already”;
  - 70.1% of respondents agreed or strongly agreed that they **are not familiar** with the green electricity options that can be chosen for their home
  - 62.8% agree or strongly agree that the electricity provider is asking for extra money to do **something that they should be doing already**

Barriers to signing up to the NaturalPower Program

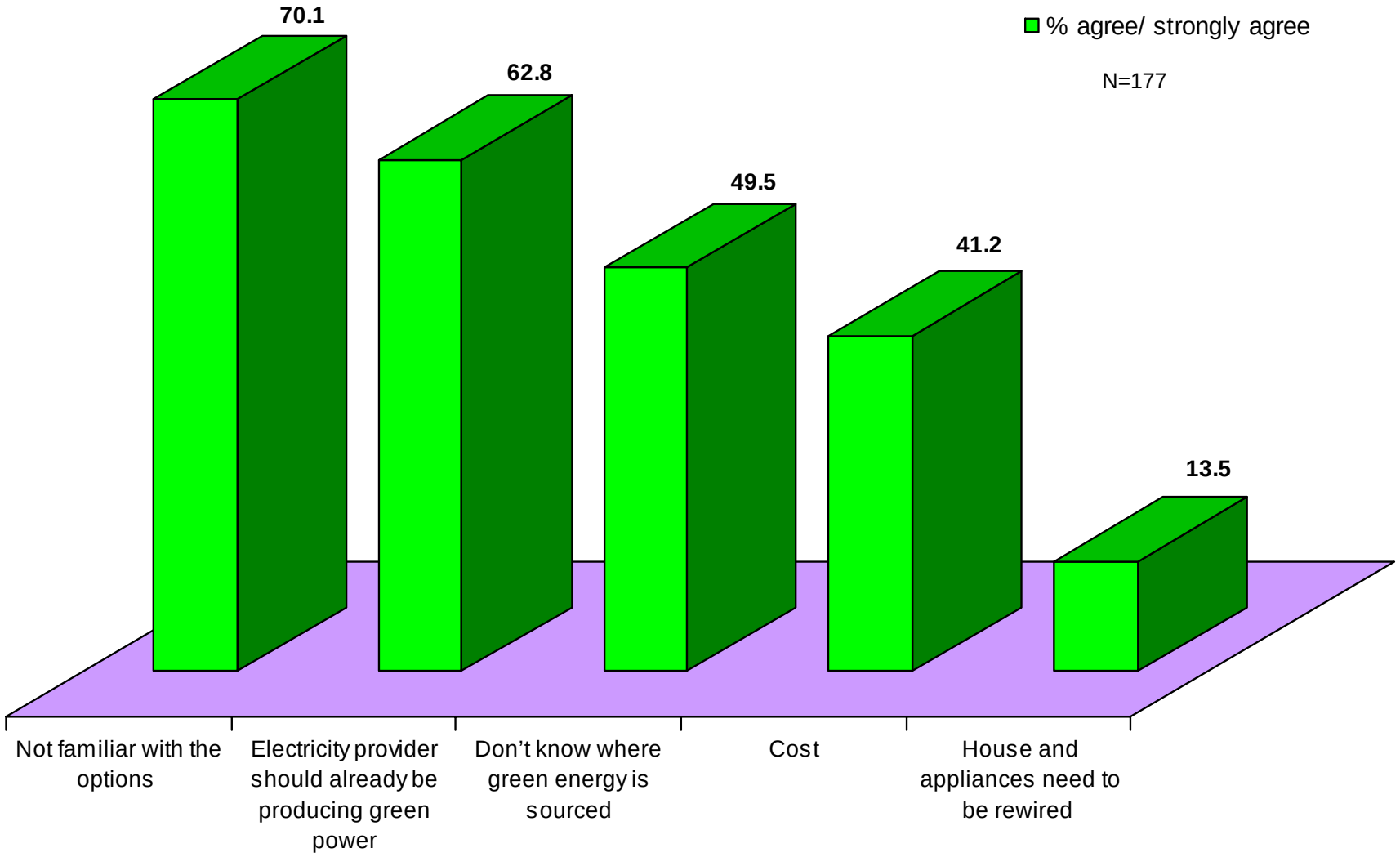
- The **second group of barriers** (rated significantly less strongly than the first) again feature a lack of awareness/ information regarding the program, along with additional expense;
  - 49.5% of respondents agreed or strongly agreed that they don't know a lot about where green electricity is sourced from
  - 41.2% agreed or strongly agreed that they cannot afford to pay more for electricity – those renting (54.0%) were significantly more likely than homeowner respondents (35.8%) to agree with this statement

Barriers to signing up to the NaturalPower Program

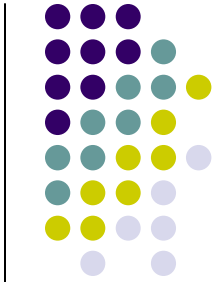


- **The remaining barrier** – using green power will mean that I have to have my house and appliances rewired – was important to 13.5% of respondents – however a significant proportion of respondents (29.7%) did not know if this was an issue associated with green or NaturalPower
  - Those over 40 were also significantly more likely to agree or strongly agree with this statement (20.3%) than those under 40 (5.3%).

Barriers to the NaturalPower Program



Motivators for changing behaviour – signing up to the NaturalPower Program



- Overall, and as to be expected, the **strongest motivator** for signing up to the NaturalPower Program would be a significant reduction in the cost of the program
  - **73.3%** of respondents felt that this would either strongly or very strongly encourage their decision to sign up to the program
- This principal motivator was followed by (rated significantly less strongly) **by the availability of discounted appliances** as part of the program, along with tips on how to reduce electricity bills;
  - **50.0%** of respondents felt that this would either strongly or very strongly encourage their decision to sign up to the program

Motivators for changing behaviour – signing up to the NaturalPower Program

- The remaining motivators to change behaviour were important to around 1 in 3 respondents;
  - 36.6% of respondents felt that having information regarding how the NaturalPower Program is audited would either strongly or very strongly encourage a decision to sign up to the program
  - 31.7% of respondents felt that if they received information regarding the program it would either strongly or very strongly encourage a decision to sign up
  - 27.8% of respondents felt that if they could choose the specific green energy sources from which their power would be generated would either strongly over very strongly encourage a decision to sign up

Motivators for changing behaviour – signing up to the NaturalPower Program

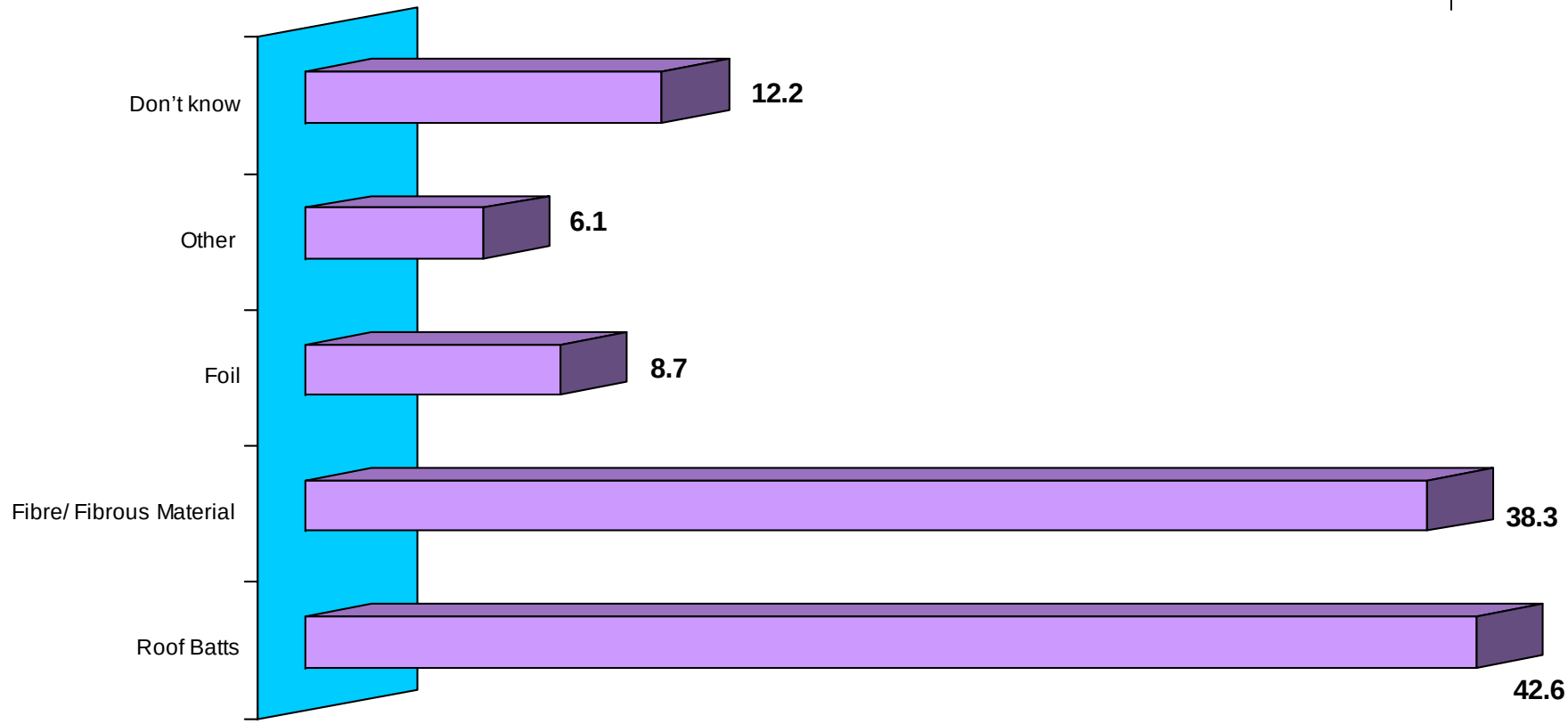
Motivator	% strongly or very strongly encourage (n= 182)
If the cost of NaturalPower was significantly lower	73.3
If NaturalPower was offered with the availability of discounted energy efficient appliances and tips on how to reduce my electricity bill	50.0
If I had information regarding how the program is audited so I know how my money is being spent	36.6
If I received information about what the NaturalPower options are and how to sign up	31.7
If I could choose the specific green energy sources my NaturalPower comes from like a wind farm or solar power station	27.8

Roof Insulation

Current Roof Insulation Behaviour

- At present;
  - **Almost 9 in 10** (87.8%) homeowner respondents (n=131) report to having roof insulation installed in their home
    - 9.9% (or 13 respondents) do not
    - The remaining 2.3% (3 respondents) did not know if they have roof insulation installed

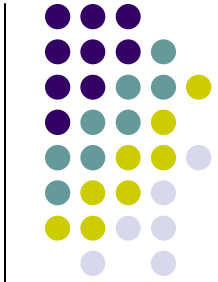
Types of roof insulation installed



N = 115

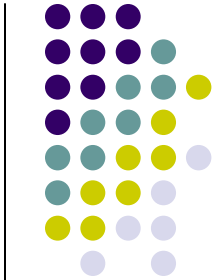
Note: this was a multiple response question – with 9 respondents (7.8%) reporting to have more than 1 type of roof insulation installed in their home

Barriers to upgrading existing roof insulation



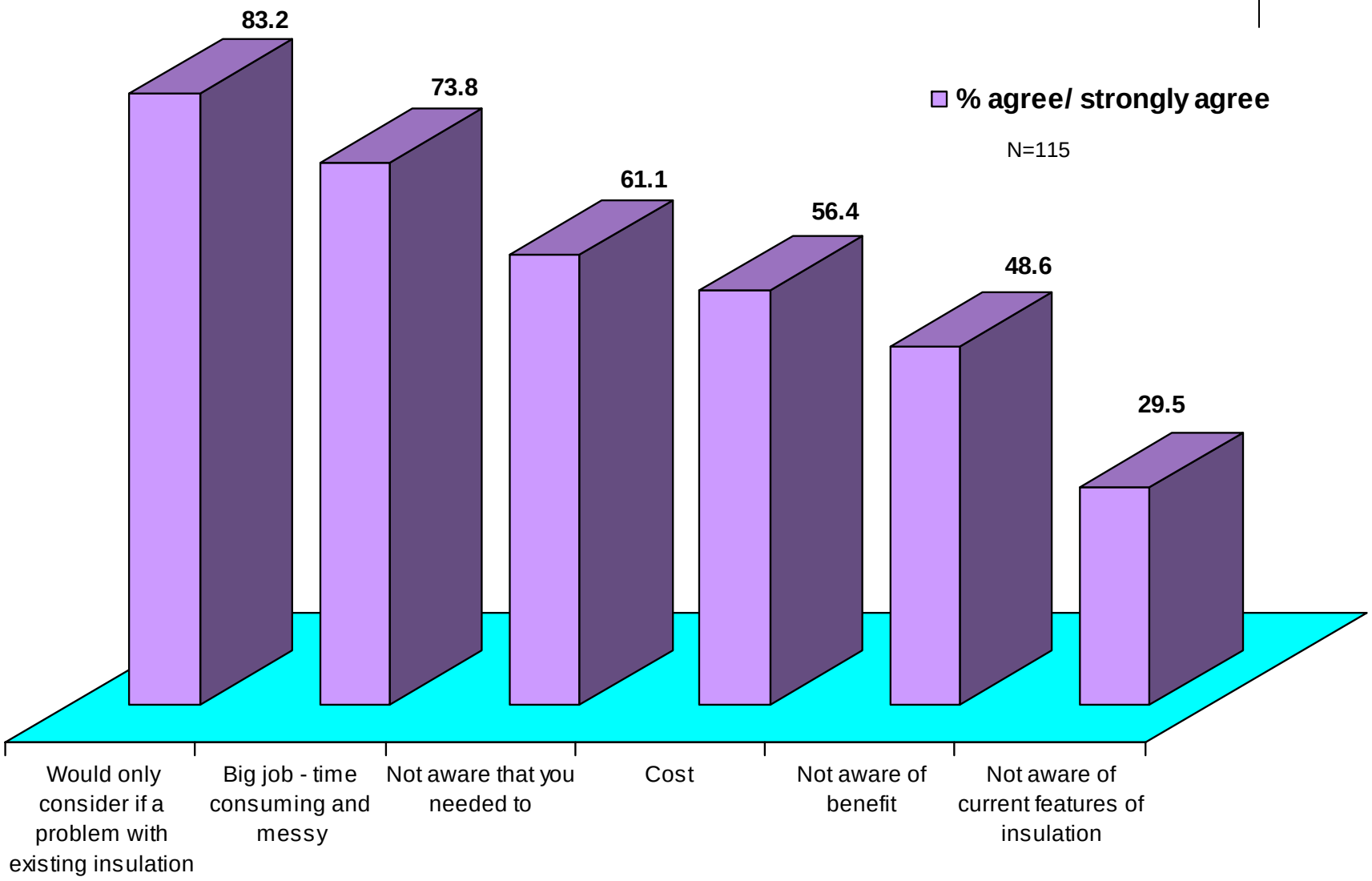
- Respondents with existing roof insulation (n=115) were asked to consider a series of barriers to upgrading the insulation
- Overall, the **two strongest barriers** to upgrading existing insulation were a feeling that insulation would only need to be upgraded **if there was a problem** and the **time and "hassle"** involved with the process;
  - 83.2% agreed/strongly agreed that they would only consider upgrading if there was a problem with their current insulation
  - 73.8% agreed/strongly agreed that replacing roof insulation is a big job which is time consuming and messy

Barriers to upgrading existing roof insulation



- This was followed by a **second group of barriers**, mainly related to awareness, benefits and again, expense;
  - 61.1% of respondents agreed/strongly agreed with the statement that it had never occurred to me that I may need to upgrade my roof insulation
  - 56.4% agreed/strongly agreed that upgrading roof insulation would be too expensive
  - 48.6% agreed/strongly agreed with the statement that they didn't know what benefit upgrading insulation would have on their home
- The remaining barrier – not being aware of the features of the current insulation installed at home – was an issue for 29.5% of respondents

Barriers to upgrading roof insulation



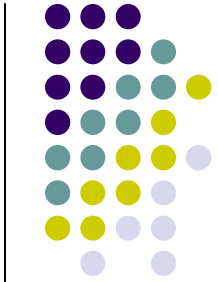
Barriers to installing roof insulation

- Those respondents who currently do not have roof insulation installed or didn't know (n=16) were asked to consider a series of barriers to installation
- Overall, three barriers emerged with some strength;
  - **Cost –** 42.8% agreed/strongly agreed that they could not afford roof insulation
  - **Time consuming and messy –** 40.0% agreed/strongly agreed that they would need to install roof installation themselves to save money and it would be a big messy job
  - **Awareness –** 40.0% agreed/strongly agreed that they didn't know enough about the different types of roof insulation available
- Needing to rewire the house before roof insulation could be installed was an issue to around 1 in 5 respondents (20.0%)

Note: please note the very small sample size for this question which does affect the sampling error attributable to these results

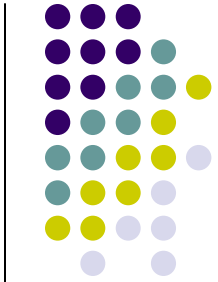
Shading of external east/west facing windows

Current external window shading behaviour



- At present;
  - **Just over 1 in 4** (27.5% or 36 respondents) homeowner respondents (n=131) report to have east and west facing windows that are currently unshaded from the outside
  - There is **some concern** in relation to these windows – with 38.9% of respondents agreeing or strongly agreeing with the statement – I am concerned about the sunlight and heat entering through my east and west facing windows

Barriers to the installation of external window coverings



- Overall, however, the majority of respondents do believe that the **internal shade coverings** currently installed on east and west facing windows (curtains and/or blinds) are sufficient – 54.3% agree or strongly agree that their blinds and/or curtains are sufficient to block out the sun entering their home
  - For around 1 in 5 (21.1%) the price of the external shade cover they would prefer is a barrier to installation
  - For just over 1 in 10 (13.9%) the window is too close a boundary fence to consider external shading options

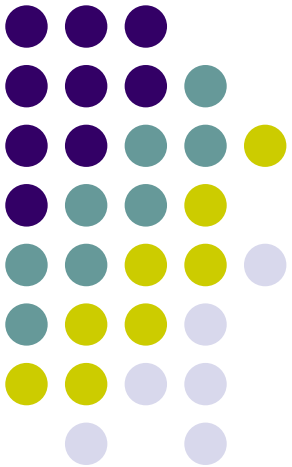
Preferred external window shading

- Overall, preferences for external window shading were dominated by window tinting and roller shutters, followed by pergolas

External shade preferences	% preference (n= 36) Multiple responses permitted
Window tinting	44.4
Roller shutters	22.2
Pergola/ other external structure	13.9
External awnings	8.3
None – would not consider	8.3
Other (including roof eaves and trees)	13.9

Appendix 1

The Questionnaire



Appendix 2

Data Collection Specifics

Statistical Summary