



Major Research Report
Prepared for the Department for Energy and Mining
Access to energy programs for low-income households

July 2021

Aim of survey

The aim of the survey, undertaken by Mint Research was to understand how people on low incomes, in public, social and rental housing can access incentives under the Retailer Energy Productivity Scheme (REPS) to improve the energy efficiency and thermal comfort of their homes and potentially reduce their electricity bills. The survey was targeted to low-income renters. Questions at the start of the survey excluded home owners, or people paying over \$400 per week in rent to align with the criteria of the priority groups in the REPS. The survey also sought to evaluate the incidence and awareness of smart meters and time of use tariffs, and the ability of respondents to shift their energy use to the 'solar sponge' time between, 10am and 3pm.

This executive summary and the attached report are best read in combination with the recently provided SACOSS annual briefing to the Energy Minister,¹ which can be found on the SACOSS website and in the footnote below. The annual briefing provides further information about retail electricity pricing and time of use tariffs from the surveys undertaken and is not replicated in this executive summary.

Background

The REPS program offers incentives through electricity retailers that may reduce energy costs in the home and improve thermal comfort, such as roof insulation, water heater upgrades, glazing retrofits and energy efficiency appliances – including fridges, reverse cycle air conditioners. The program has a list of 29 approved 'energy productivity activities' that includes the above incentives as well as simple measures such as replacing of showerheads, light globes and switching to a time of use tariff.² All activities under the REPS may not be offered by retailers or third-party providers. The most prevalent incentives offered under the REPS by third party providers is lighting and water heating. Lighting is offered by all third-party providers under the REPS, with hot water heating provided by all but one provider. Other providers also offer insulation, building sealing and appliances, including heating and cooling. One third party provider offered a wider range of incentives under the REPS, including connecting a new or existing battery to a Virtual Power Plant.³ Incentives that do not appear to be offered by retailers or third-party providers are window glazing retrofits.

¹ Annual SACOSS Briefing to the Minister for Energy (2021)
<https://www.sacoss.org.au/sites/default/files/public/Annual%20Briefing%20to%20Energy%20Minister.pdf>

² Essential Services Commission of South Australia (2021) REPS Activities.
<https://www.escosa.sa.gov.au/industry/reps/activities/reps-activities>

³ Essential Services Commission of South Australia (2021) Obligated retailers and third-party contractors. <https://www.escosa.sa.gov.au/industry/reps/obliged-retailers-third-party-providers/obliged-retailers-3rd-party-providers>

Understanding the awareness and likelihood of rental, public and social housing tenants to access these activities, particularly those activities that would have a beneficial impact on thermal efficiency was what the research aimed to find out. The results of the survey show that awareness of the REPS among rental households is very low with only 13 percent of respondents aware of the scheme, with only five percent of respondents contacting their retailer to enquire about the scheme.

The survey did not specifically set out to understand the view of renters in relation to who is responsible for energy efficiency retrofits in rental homes. However, it is evident that incentive programs like the REPS are mostly accessed by owner-occupiers, rather than owners of rental properties, with only seven percent of rental properties accessing ceiling insulation in an Australian rebate program.⁴ A systematic literature review conducted by Lang et al (2021) aimed to understand the factors that influence landlords to retrofit rental properties. The results of the review found that financial factors such as increasing the value of the property and subsidies available for retrofits were the most common motivations cited by landlords to undertake energy efficiency retrofits. However, some landlords did not believe that retrofits would increase the value of the property and the majority of landlords stated more barriers against retrofitting, due to the financial cost of doing so. The literature review also noted that some landlords were unaware that subsidies for retrofits were available, or they were difficult to access.⁵ Low levels of awareness of the energy efficiency condition of rental properties were also cited as a barrier to retrofit rental homes as well as the “organisational burden” of implementing retrofits, which included organising retrofits with the involvement of various intermediaries, such as property managers and tradespeople.⁶

Motivations from landlords related to the tenant were also highly cited among the literature reviewed and this included concerns for the tenants well being and thermal comfort, tenants’ requests for specific retrofits, and a desire to retain the tenant. The review also found that tenants in low cost housing were less likely to request retrofits and were less empowered to do so.⁷ Other less cited motivations from landlords were values based such as, an attachment to the property, being seen as a good landlord and an interest in renovations. Studies from the UK noted the least cited motivations for retrofits included the existence of government programs and policies to increase energy efficiency, such as loans and mandatory energy performance certificates. In the UK, mandatory energy performance

⁴ Lang, M., Lane, R., Zhao, K., Tham, S., Woolfe, K. & Raven, R. (2021) Systematic review: Landlords’ willingness to retrofit energy efficiency improvements. *Journal of Cleaner Production*, 303.

<https://doi.org/10.1016/j.jclepro.2021.127041>

⁵ Ibid, p.7-8 & 11

⁶ Ibid, p.10

⁷ Ibid, p.8

certificates are required when building, selling or renting a home, similar to what occurs in the Australian Capital Territory (ACT).⁸ The same results have been found in the UK as in the ACT, that these schemes are not a specific driver to implement energy efficiency retrofits in rental properties. It is acknowledged that mandatory disclosure in isolation is not sufficient to drive energy efficiency improvements in rental properties; however, it does provide important data to know the standard of rental housing that exists.

Electricity retailers under the REPS are required to meet an annual energy productivity target (expressed in gigajoules). The REPS program includes what is termed priority group households and retailers are required to meet an annual gigajoule target from priority group households.⁹ The eligibility criteria for priority group households is broad and includes low income households who hold a number of concession and/or health care cards, rental households who pay less than \$400 per week rent, households participating in an energy retailer hardship program or on a payment plan, and households that have a referral from the South Australian Financial Counsellors Association. The survey only included people who met this eligibility criteria and who were on low incomes.

Time of use tariffs in SA were introduced by SA Power Networks (SAPN) to incentivize electricity usage in the middle of the day (10am to 3pm) when most solar energy in the state is generated. The tariffs provide a cheaper middle of the day rate, and a higher peak rate in the morning and afternoon, from 6am to 10am and 3pm to 1am, when most people are using electricity. As discussed recently in the Annual SACOSS Briefing to the Energy Minister, SAPN will reassign all type 4 smart meters in SA to a time of use tariff from 1 July 2021 to 31 December 2021. There are approximately 22 percent of customers in SA with a smart meter and all of these customers will be assigned to TOU tariffs. Retailers will pass the cost of SAPN tariffs on to customers, with no ability to opt out or choose another tariff. As also noted in the SACOSS Briefing to the Energy Minister, 28 percent of low-income renters noted that they were “not very confident” in being able to shift their electricity use. Further discussion about time of use tariffs and people’s ability to respond is discussed further.

The Australian Energy Regulator (AER) undertook interviews with energy retailers in Queensland and SA to understand how retailers would respond to cost reflective tariffs that are passed through to them by distributors. The results of those interviews suggest that most retailers, and particularly smaller retailers will ‘pass through’ the costs of network tariffs to customers. The retailers noted that passing through these tariffs is less of a

⁸ UK Government (no date) Buying or selling your home. <https://www.gov.uk/buy-sell-your-home/energy-performance-certificates>

⁹ Essential Services Commission of South Australia (2021) REPS Targets. <https://www.escosa.sa.gov.au/industry/reps/targets>

business risk.¹⁰ However, the results of that survey also found that larger retailers may offer customers ‘insurance style’ retail products, where the retailer carries the risk of the cost reflective pricing passed from the distributor, but shields the customer from these prices. This has not occurred in SA, with retailers passing on the risk of time of use tariffs to customers.

Research findings

Online survey responses were collected from 9 – 28 March 2021. A total of 436 survey responses were collected across metropolitan and regional SA. The full results of the survey can be found in the full report to this executive summary (Attachment 1). A further snapshot of the results can be found in the info graphic (Attachment 2).

Across all survey respondents, energy costs were a high priority for households, ranking third in a list of thirteen household expenses for renters behind housing and groceries. Telecommunication and transport costs ranked fourth and fifth respectively. Electricity bills of more than \$300 per quarter occurred for 46 percent of survey respondents. Out of this 46 percent, 18 percent paid more than \$500 per quarter. Demographically, the people with the highest bills were younger and middle-aged respondents, as well as larger households. The survey also found that less than half of the respondents (45%) could locate and understand information about electricity tariffs on their bills. Combining results for finding tariffs on bills and difficulty understanding bills occurred for 75% of respondents.

Twelve percent of households had access to solar PV, the majority of who, were aged 55 years and older. The majority of renters who had solar PV also lived in public or community housing, whereas only 9 percent of households with solar PV lived in private rentals. Only 4 percent of respondents had a battery installed, with the remainder of respondents without battery storage. For energy efficient appliances, 74 percent of respondents stated their home had energy efficient appliances with again the majority of people with energy efficient appliances being aged 55 years and older. For insulation, 49 percent of respondents stated their home had insulation, with the majority of people with insulation aged 55 years and over (64%). Almost a quarter of respondents (31%) stated that they were unsure if their home had insulation, with 20 percent responding that their home had no insulation.

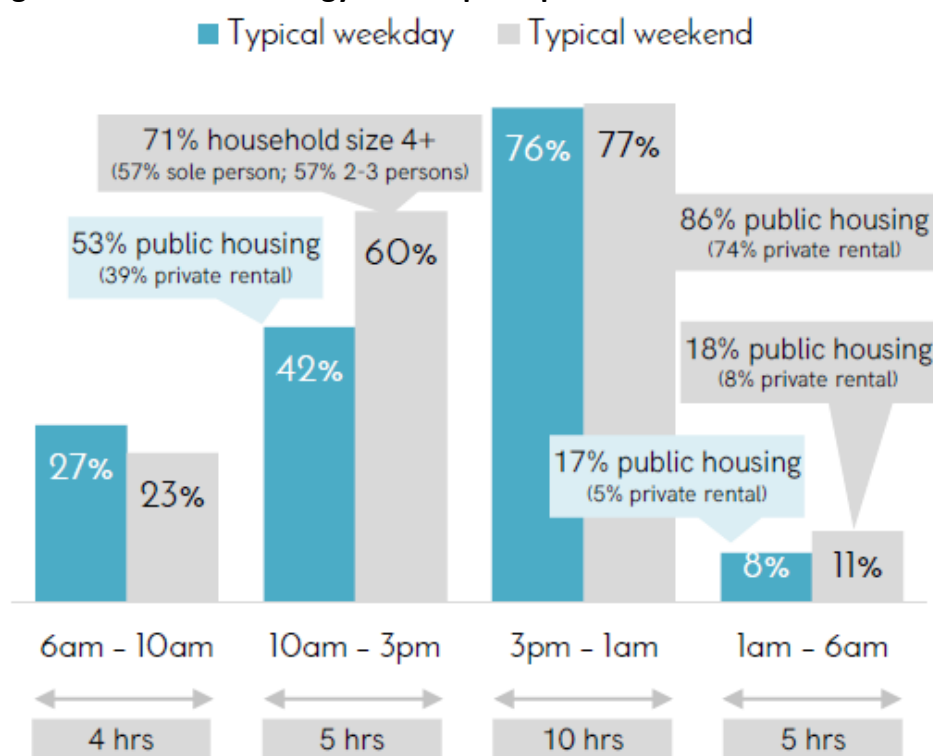
Based on energy costs and assistance available, the survey results indicate that younger, low income renters who live in larger households may be the most disadvantaged as they face higher electricity bills, are less likely to receive government concessions’ and are less likely

¹⁰ AER (no date) Understanding the impact of network tariff reform on retail offers.
<https://www.aer.gov.au/networks-pipelines/network-tariff-reform>

to have to solar panels and energy efficient appliances. The survey results also showed that most respondents are with Origin energy (33%), closely followed by AGL (28%).

Results from the survey relating to responsiveness to TOU tariffs are depicted in Figure 1 below and provided in the attached report. The results show that the majority of low-income renters in SA are using most of their electricity in the peak period of 3pm to 1am. This is a ten-hour peak window, with a four-hour peak in the morning from 6am to 10am. This type of TOU tariff would be considered static time of use pricing, with pricing based on large blocks of time.¹¹ The use of a ten-hour block of time in the afternoon and evening is excessive and best practice suggests that customers find it easier to respond to smaller blocks of time for peak pricing. This particular tariff does not fully reflect the costs on the wholesale market at any given time. Although it is generally accepted that there is a “peak” period of high demand in the afternoon and evening, it is not always constant and is also influenced by the weather, both on the supply and demand side. For example, a mild evening and high wind conditions would not be considered a peak pricing event on the wholesale market, yet high electricity costs would be passed from the retailer to the customer at this time under time of use tariffs.

Figure 1. Household energy consumption patterns



¹¹ IRENA (2019) Time of Use Tariffs – Innovation landscape brief. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2019/Feb/IRENA_Innovation_ToU_tariffs_2019.pdf?la=en&hash=36658ADA8AA98677888DB2C184D1EE6A048C7470

As noted in the annual briefing to the Energy Minister, SACOSS is concerned about the high peak tariffs from retailers, particularly from AGL and Origin, the major retailers in SA. Given that a large percentage of households (76%) will be using electricity throughout the ten-hour peak period, there is concern about the potential high electricity costs that the 22 percent of customers in SA with a smart meter will be subject to. People on low incomes, the elderly, families with children, minorities, and people with disabilities are most likely to be unresponsive to TOU and are therefore likely to be impacted with higher electricity costs.¹² Research undertaken by White and Sintov (2019) recommends the importance of having the ability to opt out of time of use tariffs, particularly for vulnerable groups to ensure that they are not exposed to higher prices. SACOSS has also previously highlighted the challenges for some households to shift demand and that many low-income households are already not using enough energy to keep warm and cool.¹³

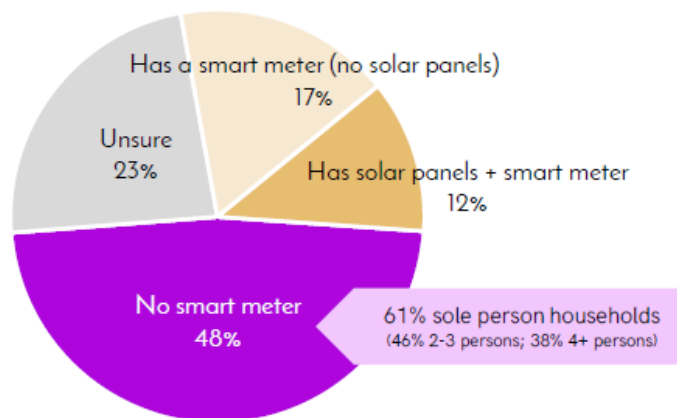
SACOSS is not aware of who the 22 percent of customers in the state with smart meters are, as this information is not public. Therefore, we do not know the effects that TOU tariffs will have and how many of the 22 percent of customers in SA will be low income renters. One of the questions from the survey asked if households had a smart meter of which 12 percent of people with solar indicated they had a smart meter and 17 percent of respondents without solar indicating their home had smart meter (Refer to Figure 2 below). We can be certain that the 12 percent of respondents with solar do have a smart meter as this correlates with data from SA Power Networks. The incidence of smart meters for other respondents is not entirely accurate as we are aware that the actual incidence of smart meters in SA is 22 percent. We are aware however, that many people do not know if they do have a smart meter or not. The lack of awareness of smart meters is also problematic as people who may have a smart meter are likely to be unaware that their tariffs may change within the next six months. There may be some people who will benefit from the use of TOU, but there are also likely to be people who will not benefit or be further disadvantaged with high electricity costs, while using electricity in peak periods.

¹² White, L. & Sintov, N. (2019) Health and financial impacts of demand side response measures differ across sociodemographic groups. *Nature Energy* 5, 50–60. <https://doi.org/10.1038/s41560-019-0507-y>

Burns, K., Mountain, B. (2021) Do households respond to Time-of-Use tariffs? Evidence from Australia. *Energy Economics*, 95. <https://doi.org/10.1016/j.eneco.2020.105070>

¹³ SACOSS (2020) Proposed tariffs to incentivise energy use in low demand periods. Submission to the Department for Energy and Mining. https://www.sacoss.org.au/sites/default/files/public/090720_SACOSS%20submission_TOU%20tariffs.pdf

Figure 2. Smart meter incidence



Awareness and access to the Retailer Energy Efficiency Scheme

One of the most significant pictures to emerge from the surveys is the lack of awareness and access to the REPS scheme for low income renters. Nine in ten households (89%) were unaware of any initiatives in the state to save energy or reduce energy costs. Of the 11 percent who were aware of energy saving initiatives, 36 percent were aware of incentives available under REPS, such as efficient lightbulbs, insulation, appliances and glazing. The remainder of initiatives that the 11 percent of people who stated they were aware of energy saving initiatives included, government concessions, discounts on bills and solar power incentives, among others.

Research participants were also asked to self-evaluate the overall energy efficiency of their household. The results show that 41 percent of respondents evaluated the energy efficiency of their home as good. A further 44 percent rated their overall energy efficiency as neither poor, nor good and 15 percent of respondents self-evaluated their homes to have poor energy efficiency. This 15 percent of respondents also had the highest percentage of people (44%) who felt least able to respond to time of use tariffs. People who self-evaluated their homes as having good energy efficiency felt more able to respond to time of use tariffs, with 47 percent of respondents stating confidence in their ability to respond.

Given that awareness of the REPS is very low among low income renters, it will be useful to understand the uptake of the program for priority group households. It is our understanding that retailers are required to submit an annual REPS report to the Essential Services Commission of SA (ESCOSA) in accordance with Regulation 29 of the *Electricity (General) Regulations 2012* and Regulation 23 of the *Gas Regulations 2012*. SACOSS is supportive of the Minister's additional requirement for the annual REPS report from retailers to include the costs of each type of activity to ESCOSA and that the customer type is identified in the

annual report.¹⁴ If the uptake for the priority groups coincide with this research and is low, it is recommended that the DEM work with retailers, community based organisations, landlords and property managers to ensure that low income renters have access to this program to potentially reduce electricity costs and improve thermal efficiency in their homes.

Recommendations

Results from the survey as discussed here and in the attached report (Attachment 1) indicate that the benefits of time of use tariffs and the REPS program for low income households are unlikely to be realised. This is of significant concern to SACOSS as we know that people who are renting and on low incomes are in most need of assistance to improve the thermal efficiency of their homes as well as needing to reduce their electricity bills. The REPS claim to do this with the objective to “improve energy productivity for households, businesses and the broader energy system, with a focus on low-income households.”¹⁵ However, results from the research conducted by SACOSS on the REPS and time of use tariffs indicate that low income renters have not been considered effectively both in the design and implementation of these policies.

For the REPS, SACOSS recommends engaging with community-based organisations who work closely with households to assist them in understanding energy bills and costs in the home. Where certain incentives offered under the REPS program may benefit a household, such as installing efficient heating and cooling or insulation, the ability for low income renters to firstly be aware of, and secondly be able to access this or request particular upgrades from their landlord is important. This may require that landlords and property managers are also better targeted and aware of the REPS program, noting the factors that motivate landlords to undertake retrofits as discussed in the background section of this summary. The wellbeing of tenants and a desire to retain tenants was a frequently cited motivation for landlords to undertake energy efficiency retrofits and this was more common than concerns about sustainability.¹⁶ This is partially due to landlords wanting to retain tenants, but also occurred when tenants asked landlords for specific improvements.

Therefore, the wellbeing and health of tenants in rental properties should be encouraged and promoted to engage landlords and property managers through the REPS program. A lack of knowledge about the energy efficiency of properties as well as the “organisational

¹⁴ ESCOSA (2021) Retailer Energy Productivity Scheme: Reporting Requirements.
<https://www.escosa.sa.gov.au/ArticleDocuments/21702/20210602-REPS-ReportingRequirements-Consultation.pdf.aspx?Embed=Y>

¹⁵ ESCOSA (2021) Retailer Energy Productivity Scheme.
<https://www.escosa.sa.gov.au/industry/reps/overview>

¹⁶ Lang et al (2021) op. cit., p.13

burden” of implementing retrofits was also noted as a barrier.¹⁷ This suggests that implementing a mandatory energy efficiency disclosure scheme would assist in identifying the state of rental housing. However, to be effective it would also need to be combined with information about the types of retrofits that would assist in improving the energy efficiency of the home as well as clear and streamlined information about what incentives or government programs are available. Having mandatory minimum energy efficiency standards for rental properties would also assist by enabling clarity in requirements for landlords.

For time of use tariffs, as discussed in the annual briefing to the Minister for Energy, there are indications from the survey conducted by SACOSS and from literature that households do not or cannot respond to price signals and will continue to use electricity in peak periods. This is compounded in SA as the peak pricing period occurs for 10 hours in the afternoon, when most people are using electricity, as well as 4 hours in the morning from 6 to 10am. As discussed, this is a form of static time of use pricing and does not reflect the true costs for retailers that occur on the wholesale electricity market. There may be periods of significantly lower pricing on the wholesale electricity market during these time periods. It is unreasonable that customers in SA with a smart meter will be penalised for such a large block of time for simply using electricity when needed. As detailed in the annual briefing submitted to the DEM, retailers time of use tariff pricing is also not overly beneficial in the off-peak and shoulder (solar sponge) periods with tariffs ranging from 17c kWh from Energy Locals to 25c kWh with Origin Energy. However, peak tariffs of up to 46c kWh remain the main concern for customers with time of use tariffs. As recommended in the annual briefing, there needs to be an opt out mechanism for households who are subjected to time of use tariffs, so they can best manage their electricity costs. It is imperative that households have a choice in their retail tariffs.

Overall, SACOSS recommends that any future energy policies and programs implemented by SA include a distributional analysis to understand the impact on different socio-economic groups. Energy Consumers Australia’s (ECA) Power Shift report noted that many households undergo a form of “silent hardship”. These are people who may manage to pay their electricity and gas bills, but only through the rationing of their energy use to an “unhealthy level.”¹⁸ Recommendations from ECA’s Power Shift report to address silent hardship include, identifying customers who are using too little energy on very hot or cold days through smart meters; providing targeted information to customers who may need additional assistance, and improving terminology to encourage participation and consider where language may be a barrier. This identification of who may be experiencing “silent

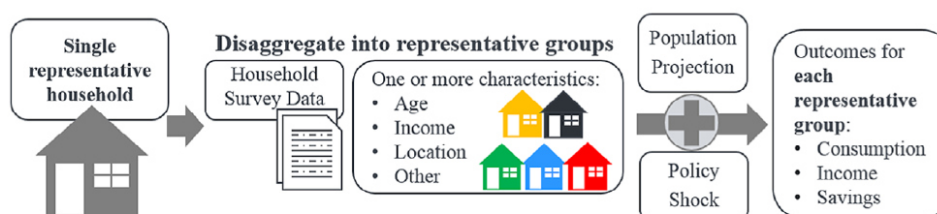
¹⁷ Ibid, p.13

¹⁸ Energy Consumers Australia (2020) Power Shift. <https://energyconsumersaustralia.com.au/wp-content/uploads/Power-Shift-Final-Report-February-2020.pdf>. P.47

hardship” should be conducted for all customers who will be reassigned to time of use tariffs, preferably before reassignment occurs.

Where there are impacts that will be felt more severely by certain representative groups, policies and or programs that redress existing inequalities that existed prior to the energy transition, as well as inequalities that further entrench existing inequalities should be implemented. The Virtual Power Plant program for Housing SA is a great example of where SA energy policies have assisted low income renters. Several models of distributional analysis are available for the government to use when developing energy policies and programs. These include broader macroeconomic approaches such as the use of representative households, which can be used to produce an analysis for each household group in terms of income, housing tenure, location, age and consumption preferences¹⁹ (Figure 3).

Figure 3. Model to conduct distributional analysis using representative households



Source: Montenegro et al (2020, p.7)

Other more detailed analyses identified by Montenegro et al (2020), include model disaggregation, which requires more data but allows for consideration of specific socio-economic groups according to their specific circumstances (income, household tenure, number of people, etc.). Equity evaluations are more flexible and can be done with fewer resources, but are less representative. These types of analyses can be undertaken with available complementary data, such as from SA Power Networks, electricity retailers and the Australian Bureau of Statistics.²⁰ The recommendations provided in the Power Shift report to identify customers who may be using too little energy on cold days or hot days could be combined with socio-economic data to understand people who may be impacted with the reassignment of smart meters to time of use tariffs in SA.

Attachments

Attachment 1 – Mint Research Report

Attachment 2 – Info graphic

¹⁹ Montenegro et al (2020) Beyond the Energy System: Modelling Frameworks Depicting Distributional Impacts for Interdisciplinary Policy Analysis. *Energy Technology*, volume 9:1 <https://doi.org/10.1002/ente.202000668>

²⁰ Ibid, p.4-5

Energy Policy Access

Study of low income renters' access to two
South Australian energy programs

RESEARCH REPORT

prepared for	Maureen Boyle, SACOSS
prepared by	Mint Research & Consulting
issued	23 rd April 2021

Executive Summary

From 9th to 28th March 2021, online surveys were undertaken with low income renters in South Australia. A total of 436 surveys were collected and the purpose of the research was to investigate the status quo of energy use, as well as awareness of and accessibility to two South Australian energy programs. The programs include the Retailer Energy Productivity Scheme, an energy efficiency program for households and time of use tariffs, designed to shift energy use to the middle of the day when most solar energy is generated.

HOW IMPORTANT IS ENERGY TO LOW INCOME SOUTH AUSTRALIAN RENTERS?

Energy is a top priority household expense for lower income South Australian renters.

Out of a list of thirteen household expenses, 80% of renters deemed energy a very high priority in the household budget, ranking energy costs a close third (after housing and food shopping). This highlights that energy is a necessity for households; deemed more important overall than other daily use and lifestyle items including telecommunications, transport, other utilities, health care, insurance, education, and personal care.

WHAT IS THE STATUS QUO OF ENERGY USE AND COSTS THAT LOW INCOME SOUTH AUSTRALIAN RENTERS ARE SUBJECT TO?

Electricity bills received by low income renters are most often more than \$300 per quarter, with only half of households receiving a government energy concession.

Close to half of households reported receiving electricity bills of more than \$300 per quarter (46%); 18% of whom pay more than \$500 per quarter. Recipients of larger bills were skewed towards younger and middle-aged respondents (50% and 55%, respectively) compared to their older counterparts (29%), and not surprisingly, larger households (68%) and 2-3 person households (48%) compared to sole person households (22%).

Despite substantial electricity bills, only half of the households surveyed (50%) are recipients of a government energy concession. Those benefiting from a Government concession tended to be older respondents (81%), compared to middle-aged and younger respondents (56% and 25%, respectively), and those living in sole person households (72%), compared to 2-3 person households and larger four or more person households (46% and 32%, respectively).

The incidence of home energy saving technology such as solar and smart meters is small for low income renters.

A relatively small proportion of just more than one in ten households (12%) reported their rental home has solar panels (around one in twenty with a solar and battery storage system; 4%).

This low incidence of solar panels among lower income renters compares to a third (33%) of South Australian dwellings overall with solar panels in 2020. The levels of household solar in South Australia is projected to continue to grow (Australian Energy Market Operator, 2020).¹

Further to this, close to three quarters (71%) reported their home has no smart meter (or were uncertain). This may represent a disadvantage for these households who may wish to participate in time of use tariffs as it is not possible to do this without a type 4 meter (or smart meter).

Only half of renters (49%) were aware of their home having insulation, again most likely among the older cohort (64%), compared to younger or middle-aged renters (43% and 45%, respectively). However, the largest proportion estimate the insulation to be older than ten years (40%); insulation of this age is more likely to degrade and less likely to effectively insulate homes.

Energy efficient appliances provide a larger energy efficiency benefit than energy efficient light bulbs, but are rarer among households surveyed.

More than four in five households reported using at least one energy efficient light bulb in their home (83%), demonstrating this is straightforward to implement in order to marginally improve energy efficiency. However, while three in four reported the presence of at least one energy efficient appliance (74%), more than a third own only some energy efficient appliances (39%), and more than a quarter do not own any energy efficient appliances or were unsure (26%).

Ownership of energy efficient appliances (and light bulbs) was again skewed towards the older and middle-aged age cohorts (45% and 42%, respectively), who reported all or most of their appliances are energy efficient, suggesting a potential disadvantage for the younger cohort (23%).

IS ENERGY ASSISTANCE ACCESSIBLE FOR THOSE ELIGIBLE?

Overall, unprompted awareness of any energy saving initiatives or programs intending to assist households to reduce their energy usage and costs was very low with only one in ten citing programs, measures and tactics.

Among renters who were able to recall any energy saving initiative (11%), those listed comprised a mix of consumer led behavioural changes and government provided incentives and subsidies.

Despite meeting eligibility criteria, prompted recall of the Retailer Energy Productivity Scheme (REPS) was relatively modest across the total sample (13%), with only 5% having contacted their retailer about the REPS and less having received any REPS assistance.

The lack of knowledge and uptake of the REPS among these eligible households presents substantial opportunity for increasing knowledge and access to the REPS; with four in five households in favour of more information about the REPS and how to access energy efficiency assistance.

¹AEMO (2020) South Australian Electricity Report. p.16
https://aemo.com.au/-/media/files/electricity/nem/planning_and_forecasting/sa_advisory/2020/2020-south-australian-electricity-report.pdf?la=en . Accessed: April 2021.

ARE BEHAVIOURAL CHANGES FEASIBLE AS A MECHANISM TO REDUCE ELECTRICITY COSTS?

The benefit of time of use tariffs is greatest for those with the capacity and confidence to modify their household's energy usage patterns; however, less than a third of households surveyed (31%) feel 'very confident' to shift their electricity usage in order to save money on their electricity bill.

The largest proportion of households were unaware of energy retailers' time of use tariffs (56%), and further to this, three in five households (60%) reported using electricity when needed (most commonly after 3pm), instead of at certain times of the day.

More than a quarter of households (28%) are not very confident in their ability to shift their household energy usage to take advantage of the cheaper tariffs during the middle of the day (e.g. 10am-3pm: the 'solar sponge' tariff), presenting a logistical barrier for many lower income households, and a disparity in benefit available to those who can use the solar sponge tariff.

Older renters find it easier to understand electricity bills (59%), compared to their younger and middle-aged counterparts (39% and 44%, respectively).

While more than two in five renters find bills easy to understand (46%), more than a third are uncertain or neutral (35%), and 16% feel that energy bills are difficult to understand. In terms of understanding electricity bills, ease of understanding skews towards older renters (59%); again age representing an advantage for this cohort.

When prompted, less than half of households could locate information about electricity tariffs on their electricity bill (45%). The largest proportion of this group who were able to locate the tariffs found them neither difficult nor easy to understand (39%), and almost a quarter reported difficulty understanding tariffs (24%). However, when including those who could not locate tariffs on their bill, difficulty understanding / finding tariffs increased dramatically to 75% of all households.

WHERE IS THE MOST DISADVANTAGE AND OPPORTUNITY FOR CHANGE?

In terms of optimizing household energy efficiency, there appears to be awareness and logistical barriers for many, including a lack of awareness of government subsidies, and a lack of ability to take advantage of time of use tariffs. This presents a substantial degree of inequity in energy efficiency for lower income renters in South Australia.

Based on energy costs received and assistance and benefits available, findings suggest that low income renters who are younger and live in larger households may be at the most disadvantage.

Compared to their older counterparts, younger renters appear to face higher electricity bills, find their bills more difficult to understand, and are less likely to receive a government energy concession. They also are less likely to have access to home energy saving technology such as solar panels, and are more likely not to be using energy efficient light bulbs and appliances.

Disparities in energy efficiency assistance may be due to barriers in access to information and/or knowledge of where to look for assistance; as well as cost barriers or logistical barriers to behaviour change.

There may be potential for these barriers to be eased by:

- The SA Government improving consumer awareness and access to energy concessions;
- The SA Government improving consumer awareness and streamlining access to energy efficiency programs such as the SA government REPS initiative;
- The SA Government collecting, modelling and attending to consumer and household energy usage behaviours, drivers and barriers; and
- Energy retailers working with consumers to improve bill formats in order to optimise consumer understanding.

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Background and Methodology

In February 2021, SACOSS commissioned Mint Research to investigate the awareness and accessibility of two energy policies for South Australians with low incomes, in public, social and rental housing.

Background

The South Australian government has implemented the Retailer Energy Productivity Scheme (REPS) and supported time of use tariffs introduced by SA Power Networks, which is passed to consumers through their electricity retailer. The REPS program is intended to improve household energy efficiency and overall energy productivity. Time of use tariffs were introduced to attempt to shift energy use to the middle of the day when most solar energy is generated and incentivising this use through lower tariffs in the middle of day, while discouraging energy use at peak times (morning and afternoon). However, it is unclear as to the awareness and access of low income households to programs.

This research should form the basis for future South Australian government decision-making in relation to energy policy and programs. As seen internationally, such decision-making should be underpinned by distributional analyses that provide an understanding of how the energy transition, various policies and interventions impact individuals or households differently.

Research aim and objectives

SACOSS' overall aim is to understand the distributional impacts of two energy policies in SA, the REPS and time of use tariffs. In light of a lack of information in this area, this research investigates how accessible these incentives are for people living on low incomes in rental, public and social housing.

Research findings will enable SACOSS to:

- Explore any energy technology disparities for low income households, e.g. access to solar and/or batteries;
- Determine if and how time of use tariffs may be leveraged in terms of shifting household energy use behaviours (acknowledging the potential inability and disadvantage of expecting consumers shift their energy use away from peak periods);
- Recommend to the South Australian government how to improve awareness and access of lower income households renting in SA to incentives through the REPS program to ultimately reduce electricity costs and improve thermal efficiency;
- Advocate for the South Australian government to integrate distributional analysis into energy policy decision-making over the longer term.

Study detail

From 9th to 28th March 2021, a 12-15 minute online survey was conducted with n=436 of the target audience. The target audience comprised South Australian lower income households; a mix of renters paying \$400 or less per week or less each week, and tenants of social and public housing.

Lower income households were defined using the upper threshold of equivalised household income for first two income quintiles (as per ABS 2017-18 Household Income and Wealth Survey).*

Data analysis

Survey data has been analysed using frequencies and cross-tabs to generate proportions (at the total level, and for subgroups of interest; subgroups specified below). Subgroups have not been analysed where cell sizes are less than n=30.

The margin of error associated with the total sample size of n=436 (50% estimate; $p < 0.05$) is $\pm 6.2\%$, meaning we can be 95% confident that a finding of 50% in the sample would fall between 43.8% and 56.2% in the population of residents and rate payers.

Open ended responses have been coded into categories, accommodating lengthy comments by enabling more than one category per comment where required.

Significance testing

Statistical significance testing between subgroups was conducted using independent samples non-parametric tests, Chi square and z-tests. Subgroups compared included age group (18-34 years, 35-54 years, 55 years or more), rental type (private rental vs public / community housing), and household size (sole person household, 2-3 person household, 4 or more person household).

Differences between subgroups have only been reported where they have been found to be statistically significant ($p < 0.05$). Statistically significantly higher proportions have been reported in coloured boxes next to charts where they exist, e.g. orange / purple shaded boxes with the name and data applicable to the *significantly higher subgroup*. When comparing three subgroups (e.g. age groups), significant differences have been reported when they exist between *both* other subgroups, e.g. older age group scores significantly higher than their middle-aged *and* younger counterparts.

How to read this report

For simplicity, data labels for proportions of less than 5% have been removed from some of the more comprehensive charts.

While the total sample size n=436, base sizes for questions may fluctuate due to skips in the logic of the questionnaire. Thus, the base size unique to each question have been reported for each figure in the footer of each page.

*Equivalised figures based on \$760 annual income AFTER TAX per single person household (<\$40,000/yr).

Essential Costs

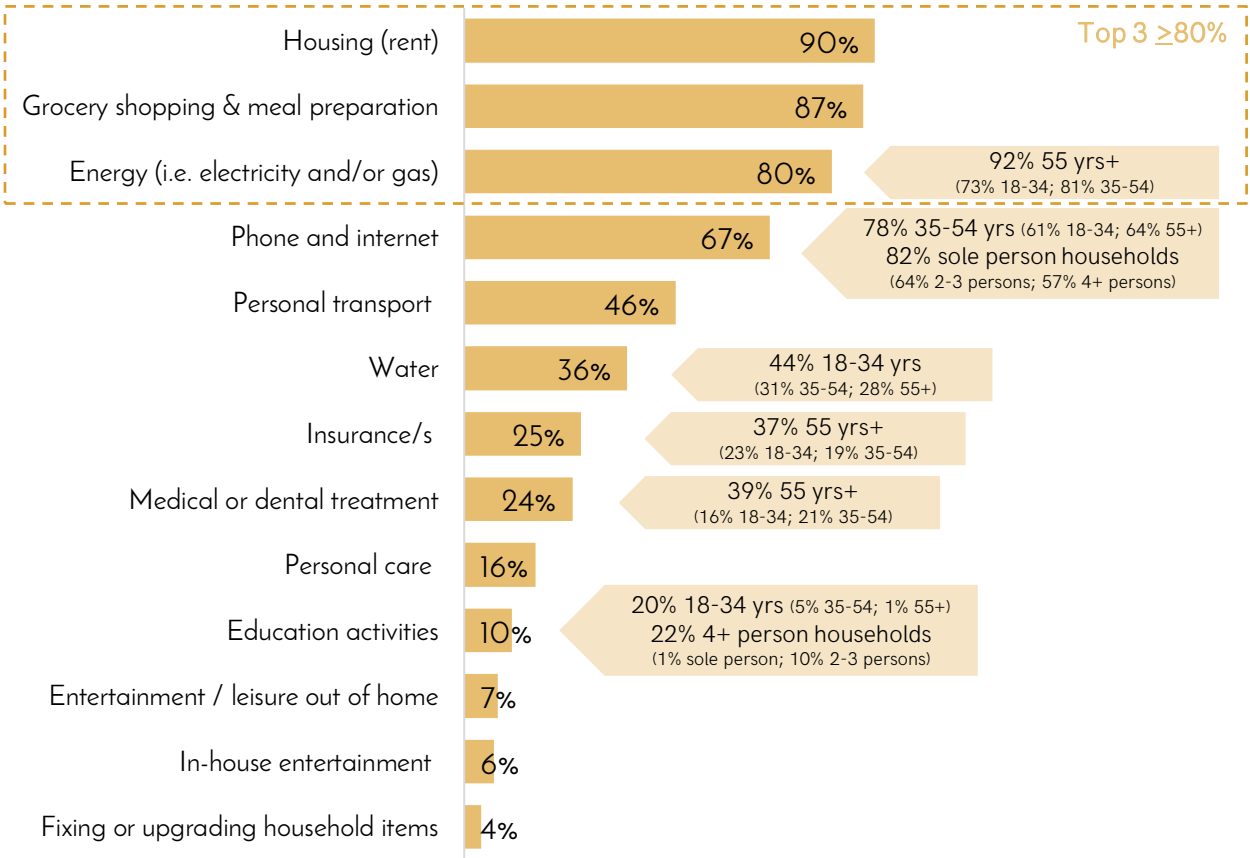
This section measures the importance and priority of energy and energy costs within the household budget in relation to other essential costs renters face in South Australia.

Housing was deemed the most important essential cost overall (90%), followed very closely by grocery shopping and meal preparation (87%).

Energy was deemed high priority in the household budget, ranking a close third in terms of importance overall (80%). Energy is of particular priority for those aged 55 years or more (92%; ranking it their most important), compared to their younger and middle-aged counterparts.

The middle-aged cohort was significantly more likely to prioritise phone and internet in their household budget (78%) compared to the older and younger age groups; however, they still prioritised energy slightly ahead (81%).

Figure 1. Essential cost importance



Q9. Thinking about the costs of household essentials, what are the **five** most important factors in your budget?

Base: Total respondents, n=436

Household Energy Technology & Costs

This section explores the energy sources and drivers of energy costs in lower income households in South Australia. The incidence of energy technologies (e.g. home insulation, smart meters and solar PV and batteries) available in homes of lower income renters was measured.

Almost all households reported having access to mains electricity (93%), and a large proportion reported a mains gas connection (52%). Twelve percent of households reported solar power (the largest proportion unsure of the capacity of the solar system), and only 4% reported having a battery storage system for solar power (the majority of whom did not know its capacity).

Interestingly, compared to younger and middle-aged renters, older renters were significantly more likely to report having solar panels (19%).

Figure 2. Household energy sources

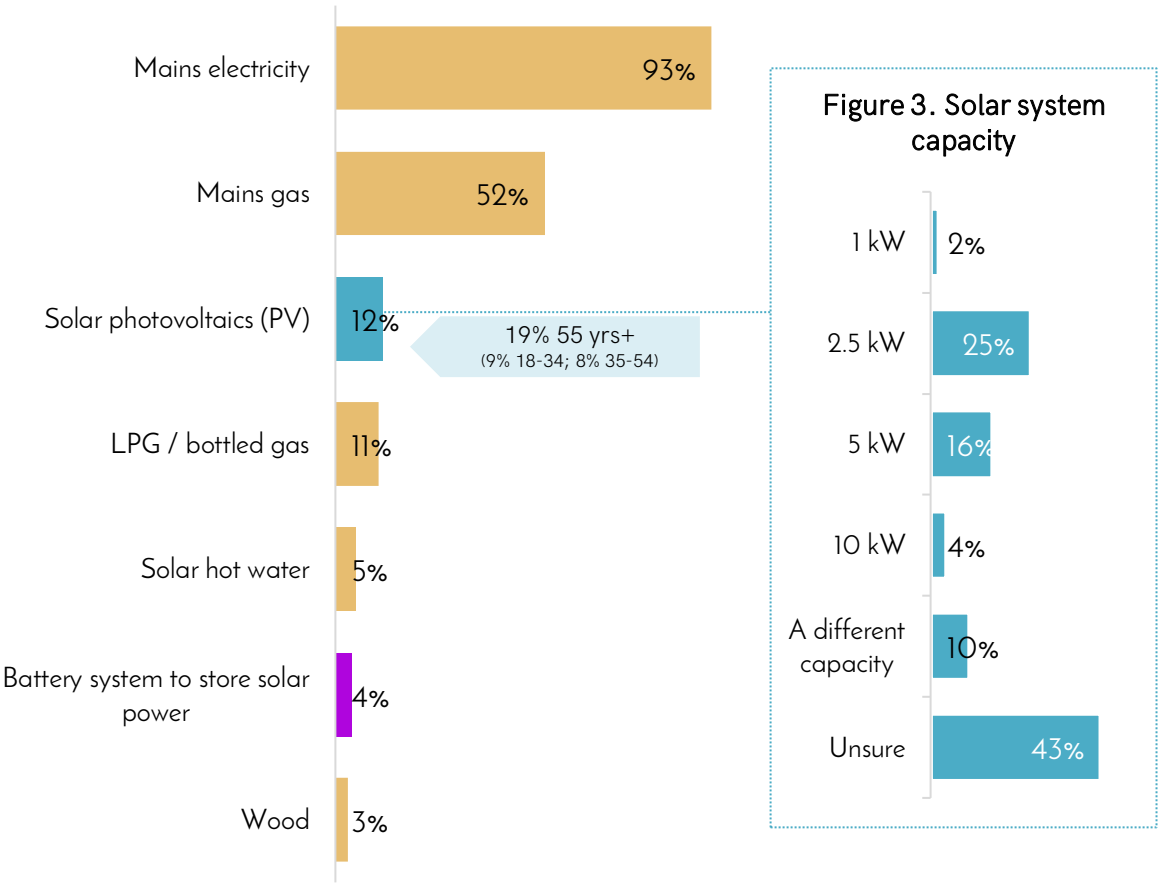
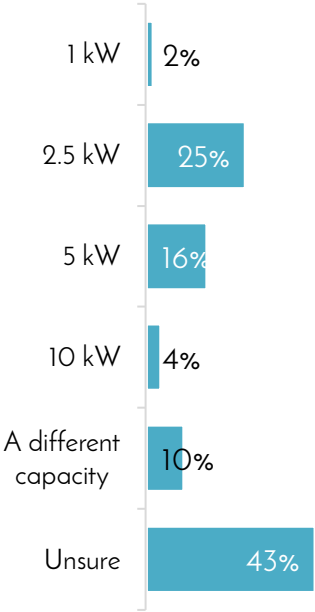


Figure 3. Solar system capacity



Q10. Thinking about your household, what are all the sources of **energy or fuel** used in your household - e.g. for powering lights and appliances and heating water? Base: n=436

Q12. Does your home have a battery system to store solar power? Base: n=436

Q11. What capacity / size is your solar panel system? Base: Respondents with solar electricity, n=51

Q13. What capacity / size is your battery storage system? Base: n=17

Household Energy Technology & Costs

Close to three quarters of renters reported having no smart meter at their rental property, or uncertainty (71%). Overall, we can be certain that the 12% of homes with solar have a smart meter, and a further 17% reported their rental property has a smart meter. This compares to approximately 22% of SA customers who have a smart meter, with more than half of these with solar (SA Power Networks, 2021).

Around half of the households were aware that their rental home has insulation (49%), again significantly higher among the older cohort (64%) compared to their younger and middle-aged counterparts. The largest proportion estimate their home's insulation to be older than ten years (40%).

Figure 4. Smart meter incidence

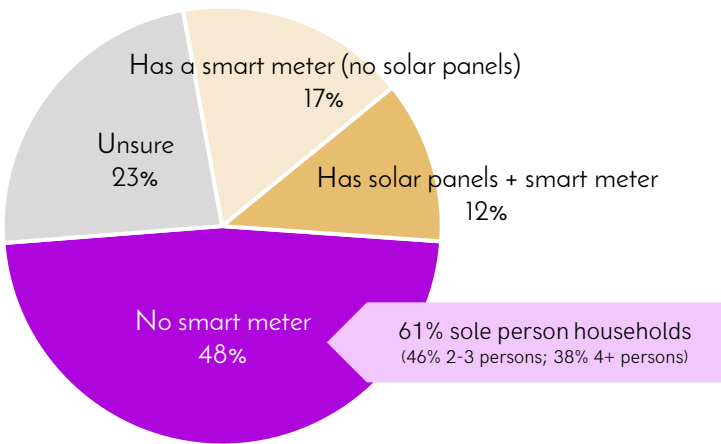


Figure 5. Home insulation

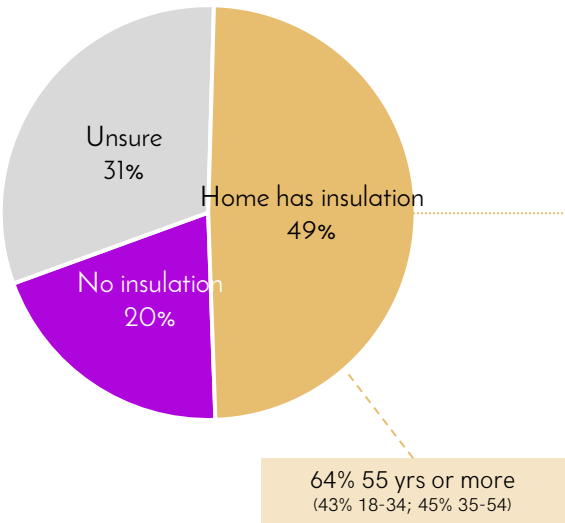
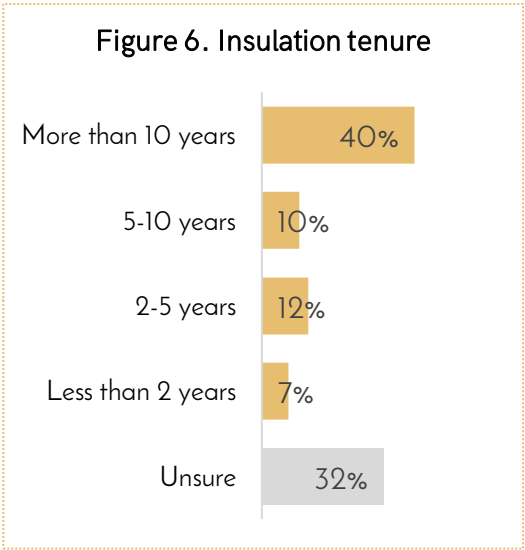


Figure 6. Insulation tenure



Q14. Do you have a smart meter? Base: n=436
Q17. Does your home have insulation? Base: Total respondents, n=436
Q18. How long has your home been insulated? Base: Those who have home insulation n=215

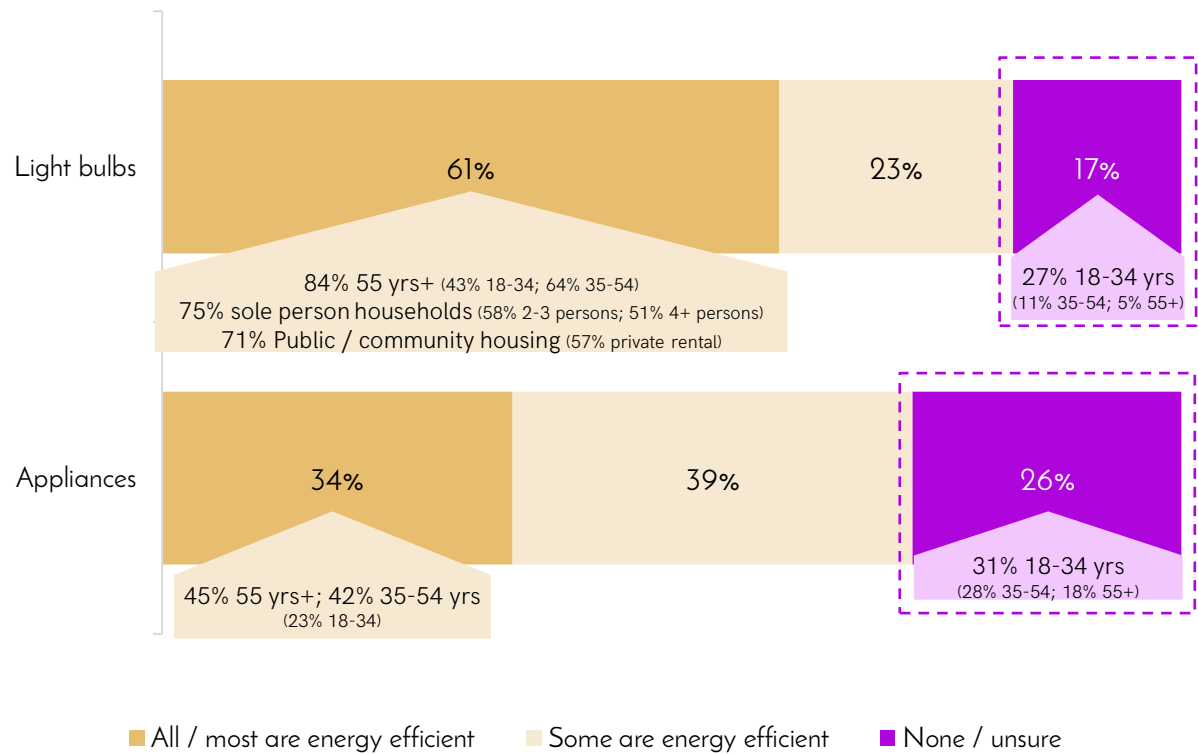
Household Energy Technology & Costs

More than four in five households reported using energy efficient light bulbs (83%), and compared to the youngest cohort, the older cohort is more likely to have energy efficient light bulbs .

Approximately three in four reported ownership of at least one energy efficient appliance (74%), with around a third reporting that all or most of their appliances are energy efficient. (Again, compared to the youngest cohort, the older and middle-aged cohorts were more likely to have energy efficient appliances.)

However, more than a quarter of households reported not having any energy efficient appliances, in particular the younger age cohort, 31% of whom reported this.

Figure 7. Energy efficient items in household



Q15. Do you have any energy efficient light bulbs? *These may include halogens, LEDs, CFLs.*

Q16. Thinking about **electrical appliances** in your home that **use the most energy, such as heaters, air conditioners, hot water systems, fridges, freezers, clothes dryers and pool pump...** Are any of these appliances energy efficient? Base: Total respondents, n=436

Household Energy Technology & Costs

Close to half of households report receiving electricity bills of more than \$300 per quarter; 18% of whom pay more than \$500 per quarter, with half of the households surveyed reporting they receive a government energy concession (50%). Reports of larger bills skewed towards younger and middle-aged respondents (23% and 22%, respectively) compared to older respondents; as well as skewing towards larger households of four or more persons (40%), compared to sole person and 2-3 person households. In contrast, recipients of a Government energy concession skewed towards older respondents (81%) compared to younger and middle-aged, and those living in sole person households.

In terms of understanding electricity bills, while more than two in five (46%) find bills easy to understand (skewed again towards older respondents: 59%), 16% feel that energy bills are difficult to understand and a further 35% are neutral. While those with a smart meter were slightly more likely to report ease in understanding their electricity bill than those without a smart meter, this difference did not reach statistical significance.

Figure 8. Average quarterly electricity bill

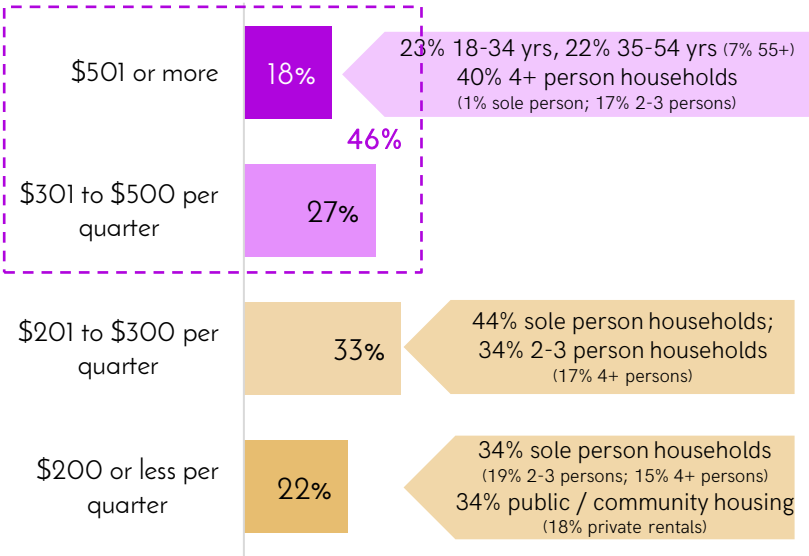


Figure 9. Government concession recipients

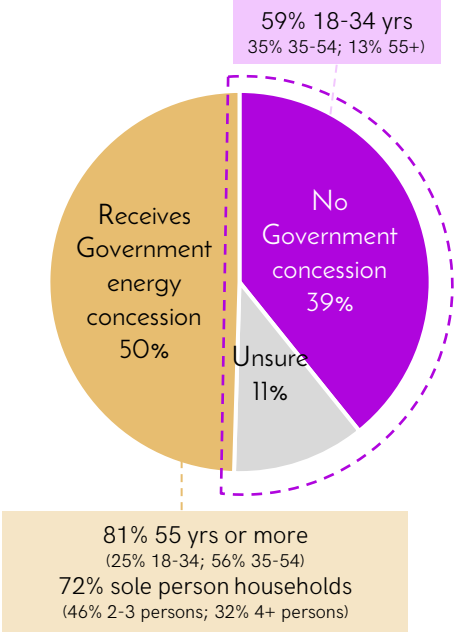
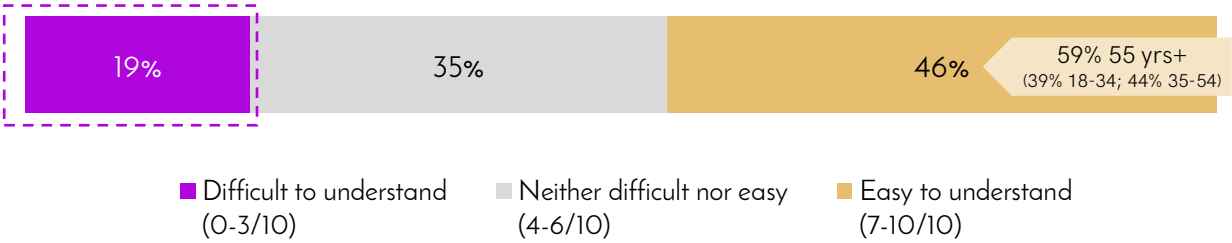


Figure 10. Overall difficulty understanding electricity bill



Q22. What is your current approximate average quarterly electricity bill? i.e. Do not include other energy costs for gas, wood, etc. Base: Those who knew their quarterly electricity costs, n=416
Q23. Do you currently receive a State Government energy concession on your electricity bill? Base: Total respondents, n=436
Q26. How easy or difficult is it for you to understand your electricity bill overall? Base: Those who have access to a bill n=375

Trust in Energy Retailer

This section explored how consumers feel towards their energy provider, and assessing sentiment and likelihood of switching.

Origin Energy appeared to be the most popular company respondents buy electricity from (33%), followed closely by AGL (28%). Of the top four electricity retailers (Origin, AGL, Energy Australia and Alinta), more than 40% believe the company acts in their best interests, with large proportions of uncertainty / neutrality.

Even though half of Energy Australia's customers feel the company acts in their best interests, 29% are very likely to switch to another electricity retailer within the next 6 months. Similarly, 26% of Alinta Energy customers indicated they are likely to switch in the next 6 months, despite a substantial proportion providing a positive rating (45% rated Alinta 7 or more out of 10).

Figure 11. Electricity company

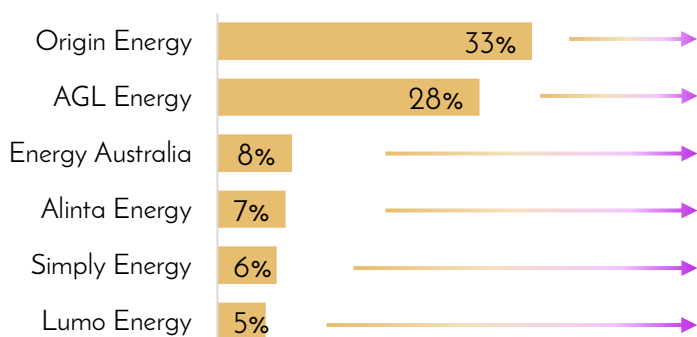


Figure 12. Switching intentions

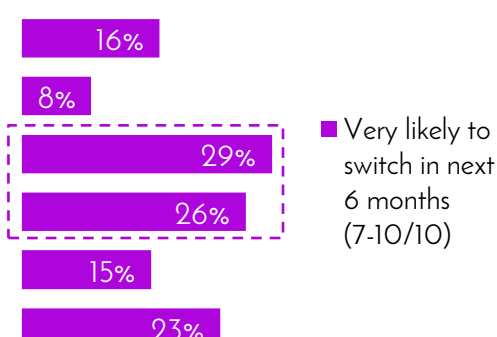
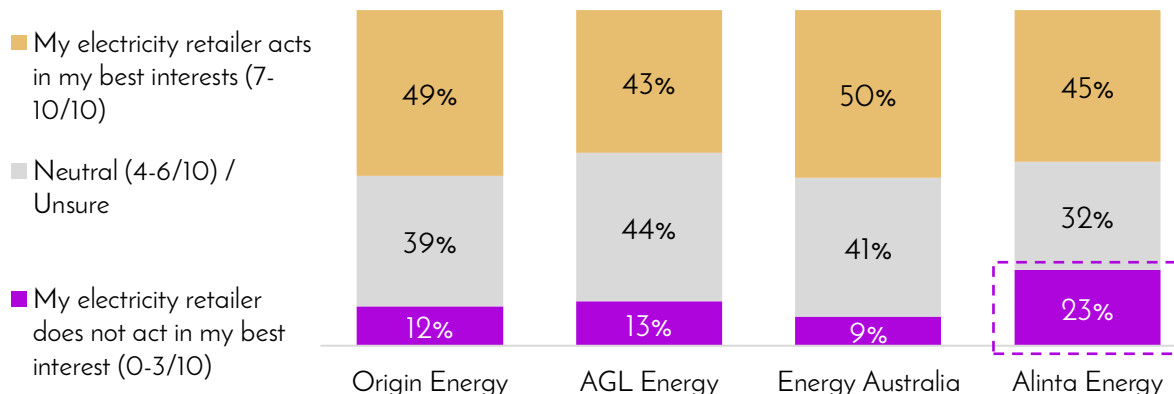


Figure 13. Opinions of top 4 electricity retailers



Q28. Which company do you currently buy electricity from? Base: Total Respondents, n=436

Note: Companies listed for mentions of 5% or more

Q29. How you feel about your electricity retailer? Base: n=380

Q30. How likely are you to switch electricity retailer in the next 6 months?

Base: Origin n=144; AGL n=120; Energy Australia n= 34; Alinta Energy n=31

Household Energy Use & Behaviours

This section explores household electricity use and energy efficiency behaviours. Behaviours observed include usage of electricity over different times of day, self-ratings of household energy efficiency, and self-efficacy to change energy use behaviours.

The majority of household electricity use occurs after 3pm, with even usage observed on a typical weekday compared to a typical weekend day (76% and 77%, respectively). Electricity usage is higher during the middle of the day on weekends compared to weekdays (60% vs 42%); 71% of larger households (four or more people) used electricity between 10am and 3pm on weekends. Interestingly, public housing tenants reported higher likelihood than private rental tenants to use energy during 1am-6am on weekdays and weekend days.

Less than a third (31%) feel very confident in being able to shift their household’s energy usage times in order to save money on their bill, with a further 41% respondents feel somewhat confident. Strong confidence to shift energy use is lower among larger households (47% of larger households reported this). Just over a quarter (28%) are not very confident in their ability to shift their energy usage times. The largest proportions of respondents who were not confident in shifting their energy use were older and sole person households.

Figure 14. Household energy consumption patterns

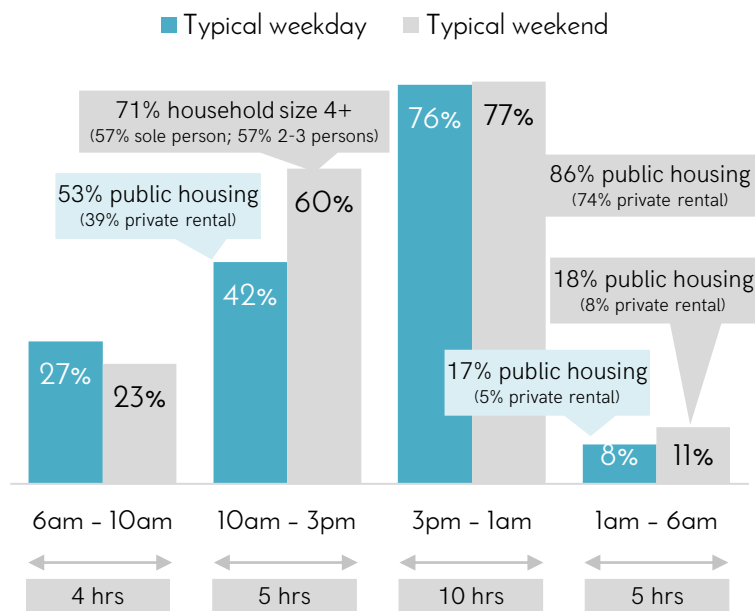
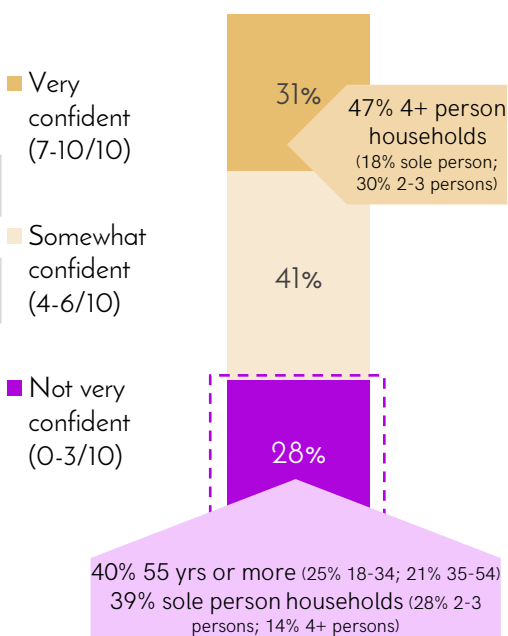


Figure 15. Confidence to shift energy usage times



Q19. Thinking about your home electricity usage (i.e. use of electrical appliances that use larger amounts of energy, please show us when you estimate the periods of time where your household would use the most amount of electricity. Base: Total respondents, n=436

Q21. How confident do you feel that you (and your household) could shift your energy usage to different times of the day (e.g., 10.30am – 3pm) or early morning (1.30am – 6am), if you were able to save money on your electricity bill? Base: Total respondents, n=436

Household Energy Use & Behaviours

There appears to be a positive correlation between one's own rating of their household's energy efficiency (Figure 16) and confidence in the ability to modify and shift energy usage times and patterns (Figure 17).

Participants were asked to self-evaluate their household's energy efficiency rating, and two in five self-rated their household energy efficiency as good (41%). The largest proportion of this segment also comprises the highest proportion of those confident in their ability to shift their energy usage times (47%).

In contrast, those who rated their household's energy efficiency as poor, the largest proportion are not very confident in their ability to be able to make changes to their energy usage times (44%).

This suggests that the opportunity of changing electricity usage and ultimately alleviating cost pressures from electricity bills is greatest for those with the capacity and confidence to modify their behaviour on their own. There remains a substantial segment of poor energy efficient households who are unable to change their behaviour to reduce their energy bills.

Figure 16. Overall energy efficiency rating

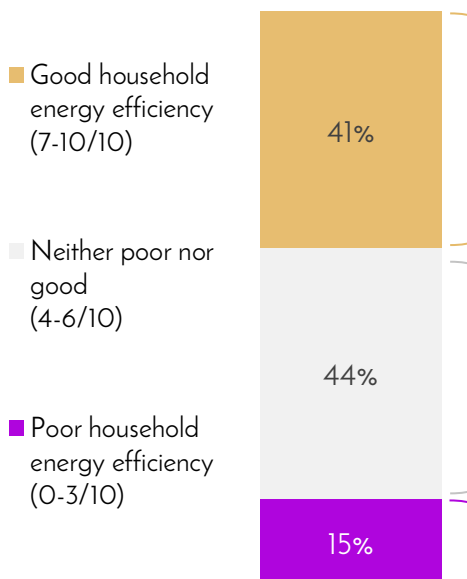
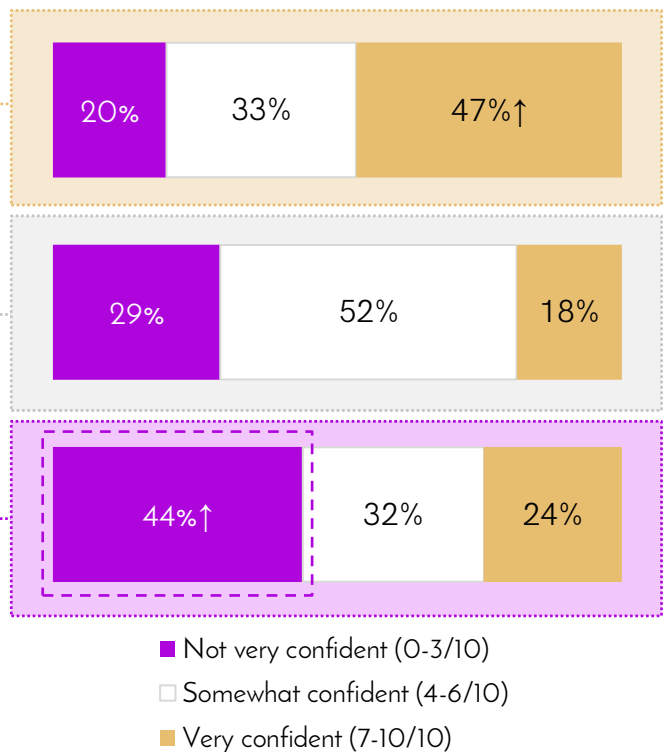


Figure 17. Confidence to shift energy usage times



Q20. How would you rate your household's overall energy efficiency? Base: Total respondents, n=436

Q21. How confident do you feel that you (and your household) could shift your energy usage to different times of the day (e.g., 10.30am – 3pm) or early morning (1.30am – 6am), if you were able to save money on your electricity bill? Base: Total respondents, n=436

Energy Initiative Awareness & Engagement

This section measures the awareness of the REPS, time of use tariffs and government and retailer incentives/concessions for eligible households.

Nine in ten households were unaware of energy saving initiatives or programs available to households to reduce energy costs (89%). Of the small proportion aware of energy saving initiatives (11%), items covered by the Retailer Energy Productivity Scheme (such as energy efficient light bulbs, energy efficient appliances, insulation, glass glazing) were listed by the largest proportion (36%), followed by concessions and discounts/bonuses (19%).

Other comments included general energy saving strategies (e.g. turning off lights, power points when not in use), conducting home energy audits, solar power incentive schemes, and time of use tariffs, peak/off peak mentions (mentions ranging from 6%-17%).

Figure 18. Energy saving program awareness

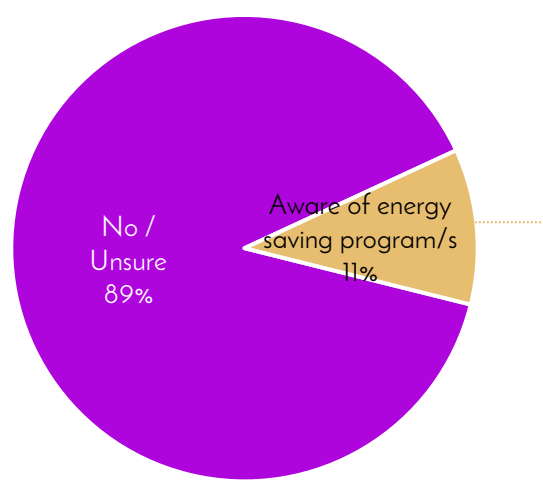
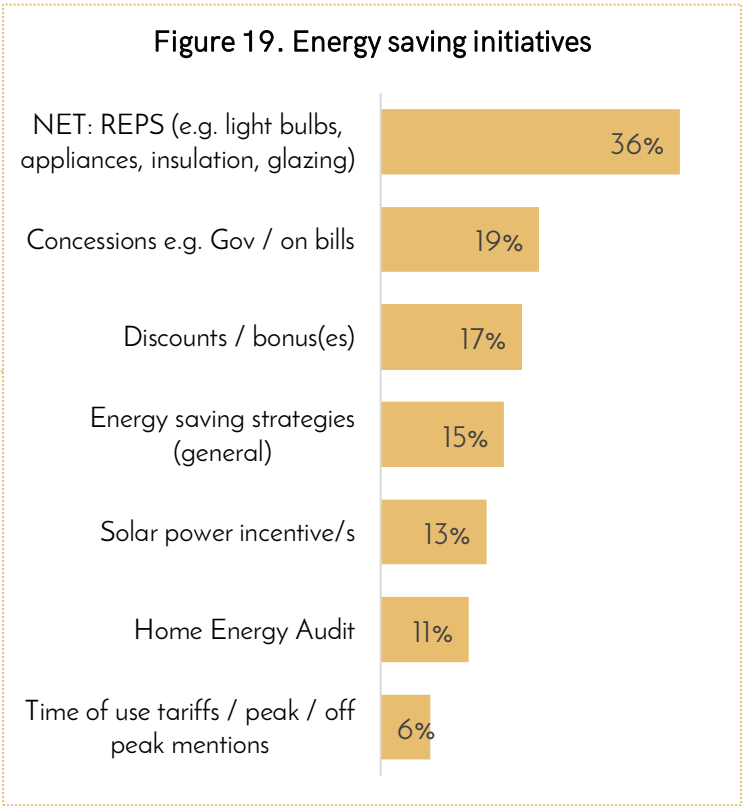


Figure 19. Energy saving initiatives



Q31. Are you aware of any energy saving initiatives or programs to assist households reduce their energy costs? Base: Total respondents, n=436
Q31.oth. Please tell us what you're aware of: Base: n=47

Energy Initiative Awareness & Engagement

Awareness of the Retailer Energy Productivity Scheme (REPS) was 13% across the total sample.

Of those who were aware of the REPS, close to two in five have made contact with their electricity retailer, and one in five have received assistance via the REPS; (however, this amounts to 5% or less of the entire sample).

Overall, around four in five believe that more information about the REPS and how to access energy efficiency assistance would be helpful (56% believe this would be *very* helpful).

Figure 20. REPS awareness

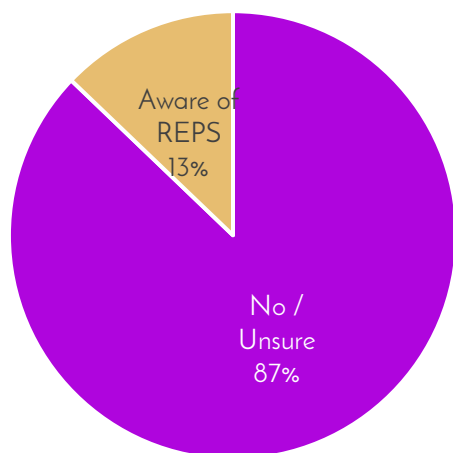


Figure 21. Engagement with REPS (of whole sample)

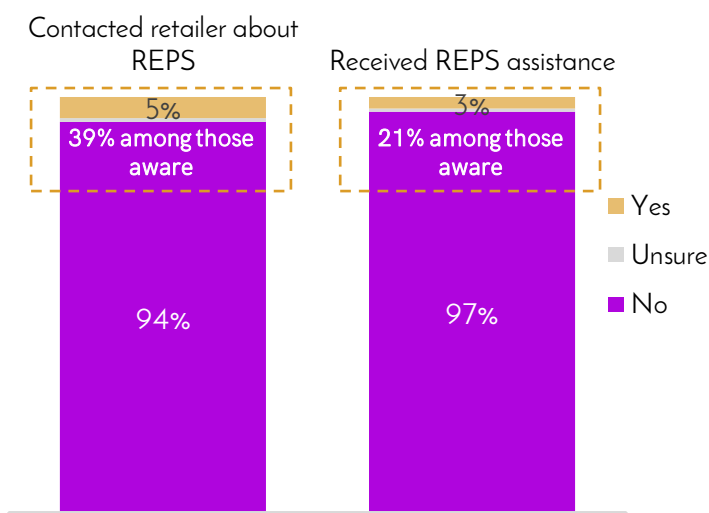
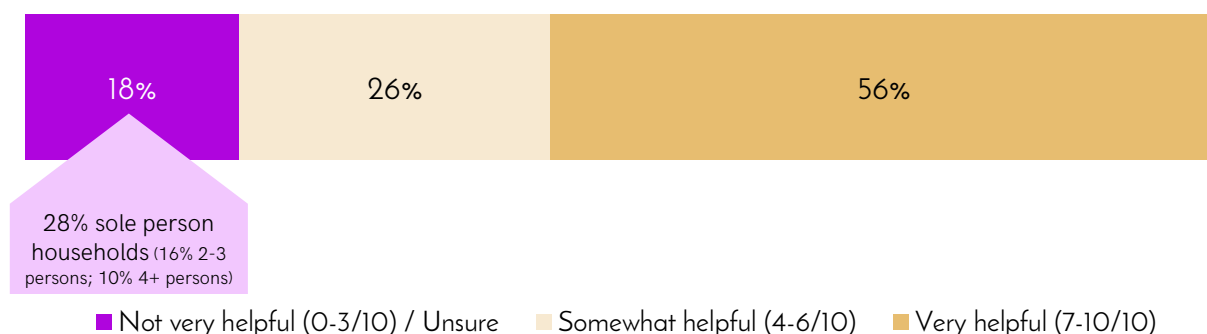


Figure 22. Helpful to know more about REPS



Q32. Before today, were you aware of the **Retailer Energy Productivity Scheme** (or REES)?

Base: Total respondents, n=436

Q33. Have you contacted your retailer or third-party contractor in relation to the REPS? Q34. Have you received energy efficiency assistance via the **Retailer Energy Productivity Scheme (REPS; or REES)**? Base: Total respondents, n=436 & Those aware of REPS n=56

Q37. How helpful do you think it would be to your household to know more about how to access energy efficiency assistance via the **REPS**? Base: Total respondents, n=436

Energy Initiative Awareness & Engagement

The largest proportion of households (56%) were unaware of energy retailers' time of use tariffs (this segment comprised significantly more private renters (59%), compared to public or community housing renters). Just over a quarter of households (28%) were aware of energy retailers' time of use tariffs (this segment comprised significantly more sole person households (40%), compared to larger households of 2-3 persons and 4 or more persons).

When the households aware of time of use tariffs were about attempts to maximise household electricity usage at certain times of the day to correspond with time of use tariffs, the largest proportion reported not doing this, instead using electricity when needed (60%). A third of respondents reported trying to (or intending to try to) maximize electricity usage during off peak usage times (33%). When looking at electricity usage patterns of these groups:

- For each, most electricity usage occurs between 3pm and 1am on weekdays and weekends;
- Of the 60% who use electricity when they need it, use is most likely between 3pm and 1am (82% weekdays and weekend days);
- Of the third (33%) who want to maximise their electricity usage during cheaper electricity usage times (or are already doing this), while weekends show relatively higher use of energy from 10am-3pm (63%, compared to 48% on weekdays), the majority are still using most energy between 3pm and 1am which is no longer considered "off peak" (60% weekdays; 65% weekend days).

Figure 23. Awareness of time of use tariffs

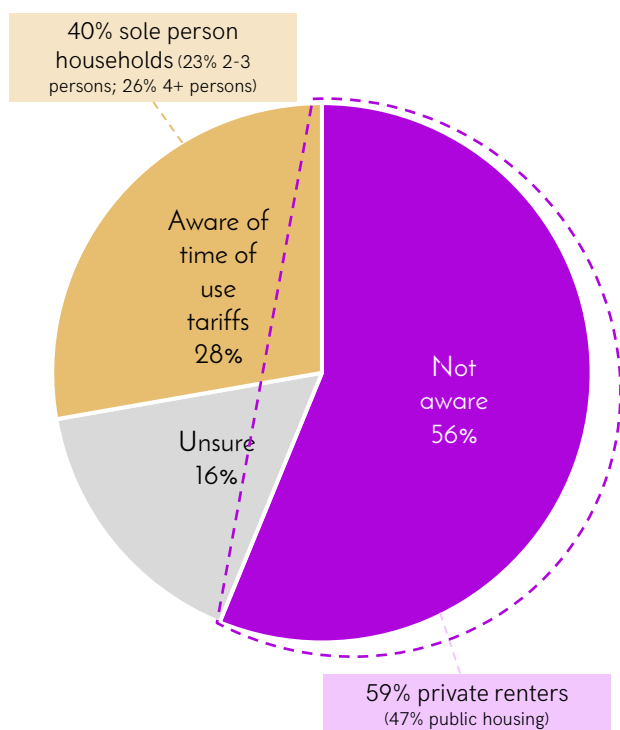
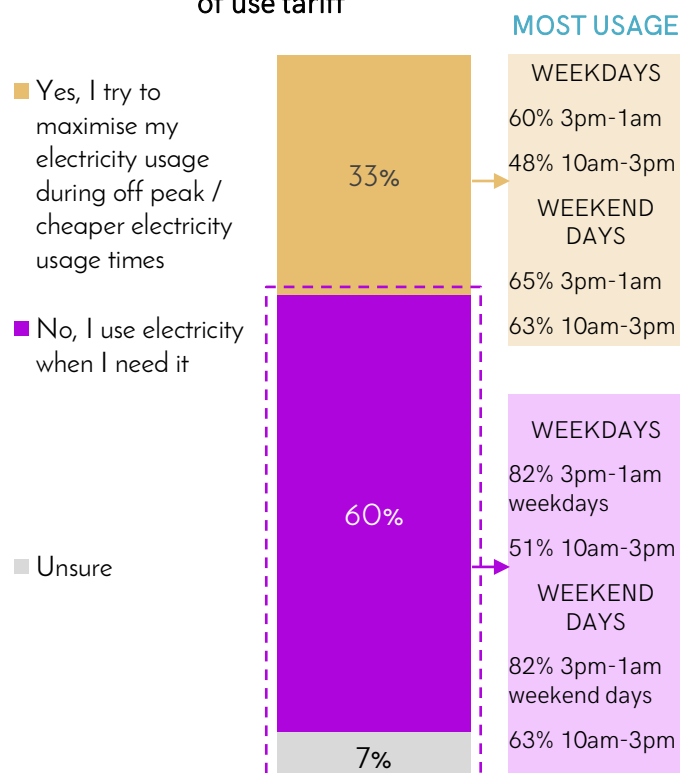


Figure 24. Engagement with time of use tariff



Q35. Before today, were you aware of energy retailers' **Time of Use tariffs**?

What are these? Base: Total respondents, n=436

Q36. If you have a time of use tariff, or intend to switch to one, do you / will you try to maximise your household's electricity usage at different times of the day to save electricity costs? Base: Those aware of time of use tariffs n=121

Energy Initiative Awareness & Engagement

When asked, less than half of respondents (45%) could locate information about energy tariffs and time of use on their electricity bill. Of those who could locate tariffs on their bill, 31% noted the different tariffs listed: peak, off peak and tariff costs (per kWh) were the most common information about tariffs provided on electricity bills.

In terms of understanding tariffs, the largest proportion of respondents who were able to locate the tariff information found them neither difficult nor easy to understand (39%); followed by more than a third (37%) who reported ease in understanding tariffs (higher among older respondents; 67%). Almost a quarter of respondents reported difficulty understanding tariffs (24%); and this figure increases to 75% difficulty when including those who were not able to locate them on their bill.

Figure 25: Locating Tariffs

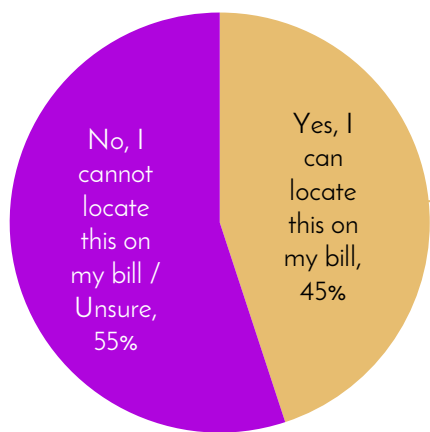


Figure 26: Difficulty understanding tariffs

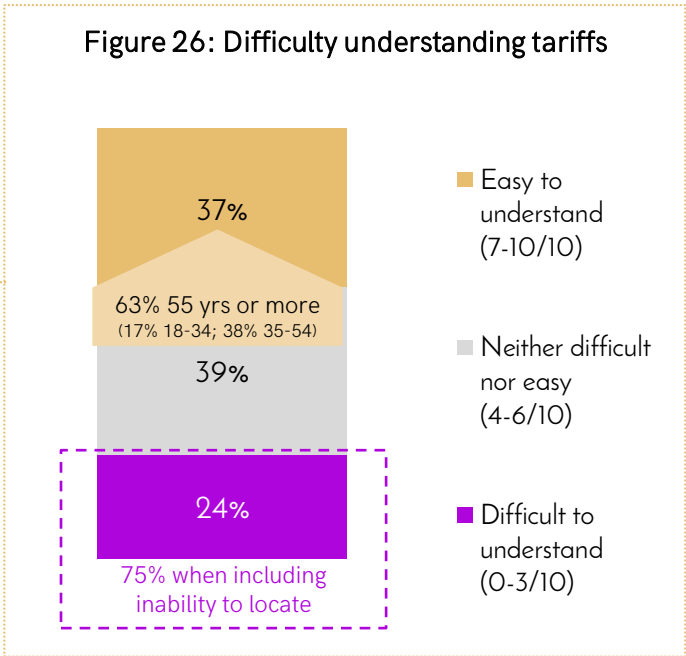


Figure 27: Different tariffs on bill

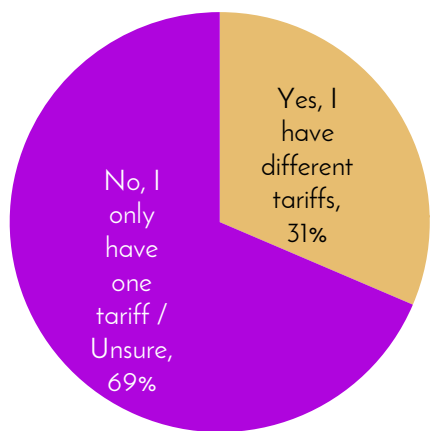
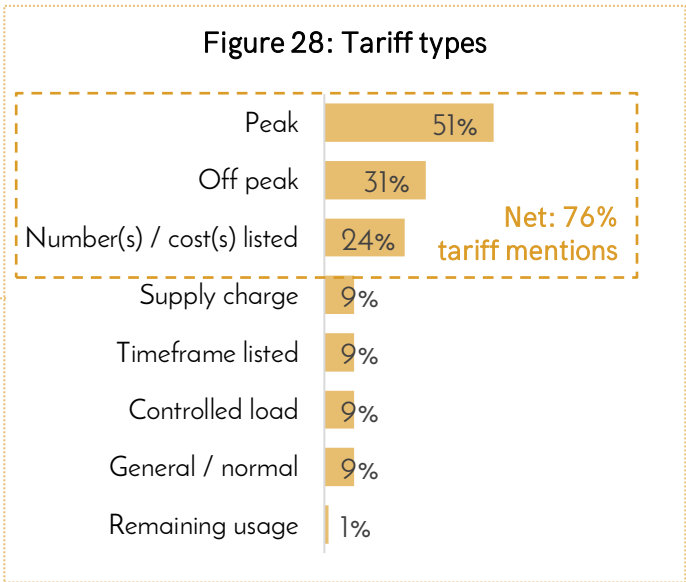


Figure 28: Tariff types



Q24. If you have access to your bill, can you locate the information about energy tariffs and times of use on your bill? Base: Respondents who can locate tariffs on bill, n=327
 Q25. Do you have different tariffs listed on your bill? E.g. peak, off peak, controlled load? Base: Respondents who can locate tariffs on bill (prompted), n=140 Q25. oth. What are these? Base: n=78
 Q27. How easy or difficult is it for you to understand tariffs on your electrical bill? Base: Those who could locate a tariff (unprompted) n=144



Appendix A: Demographics

Figure 29. SA Location

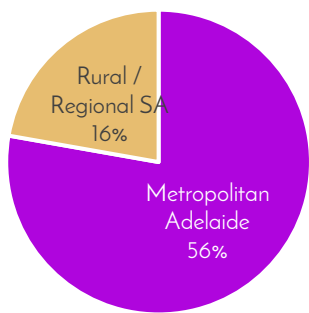


Figure 30. Gender

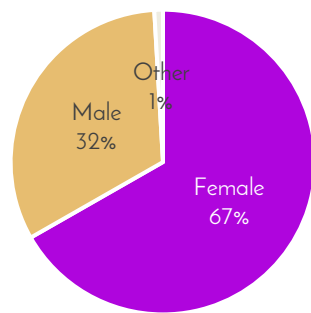


Figure 31. Age group

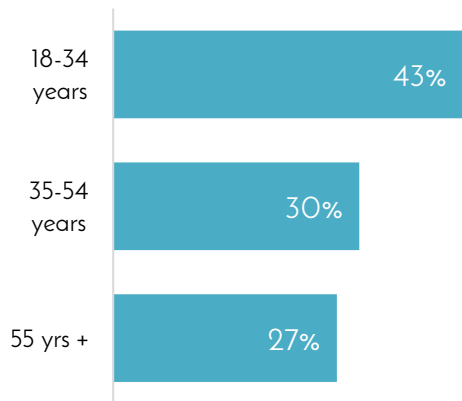


Figure 32. Language other than English spoken

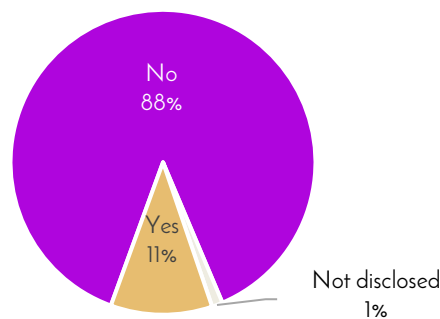
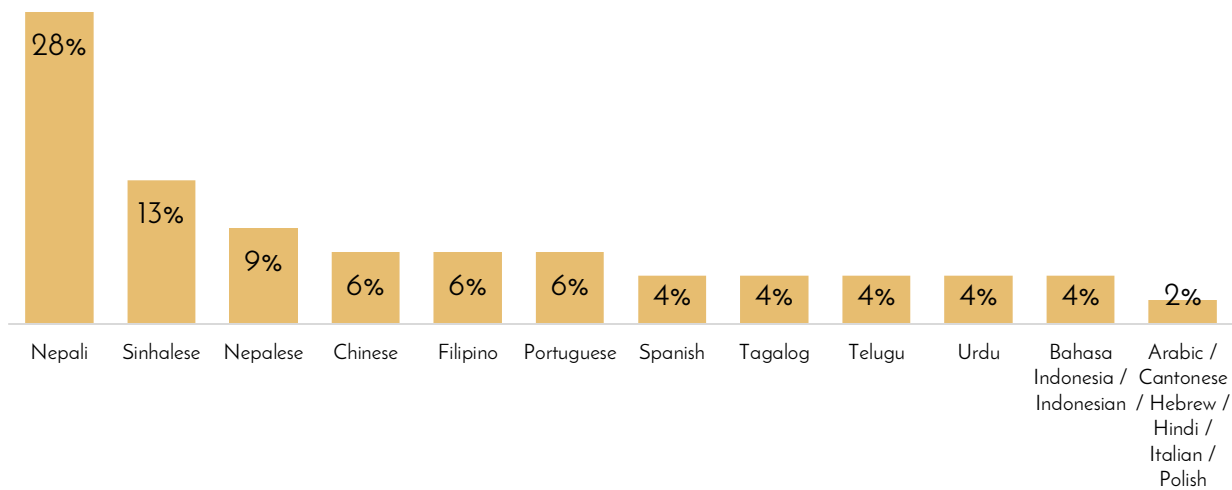


Figure 33. Other languages spoken



Q1. Where in South Australia do you live? Base: Total respondents, n=436
 Q38. What is your gender? Base: Total respondents, n=436
 Q2. Which of the following age groups do you belong to? Base: Total respondents, n=436
 Q40. Do you speak a language other than English at home? Base: Total respondents, n=436
 Q40oth. Which language? Base: Respondents who speak a language other than English at home, n=47

Figure 34. Weekly household income (after tax) compared to equivalised income first two quintiles

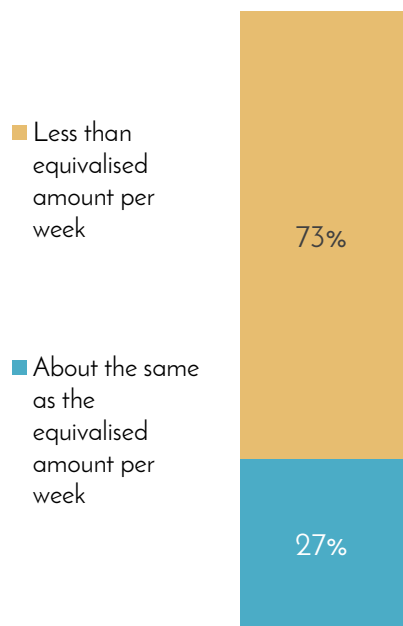


Figure 35. Occupation

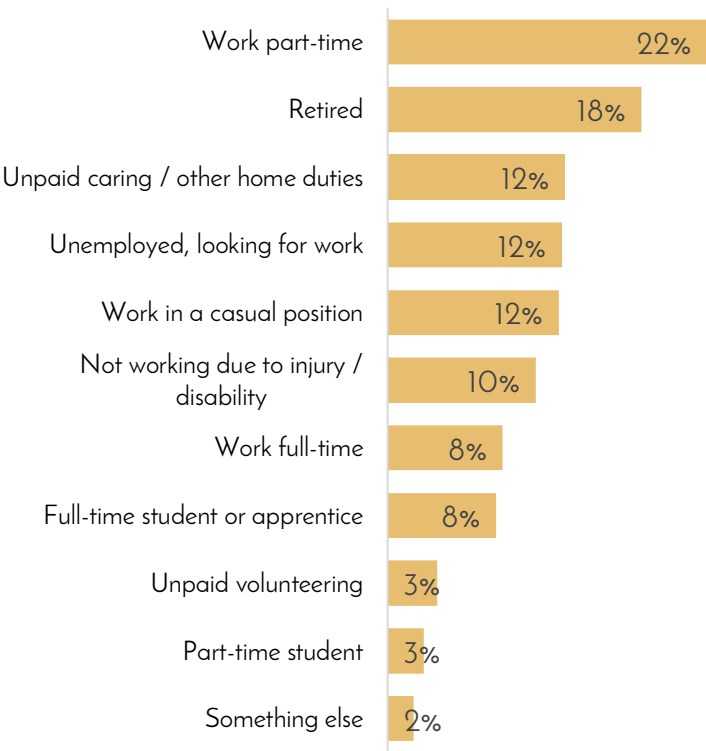
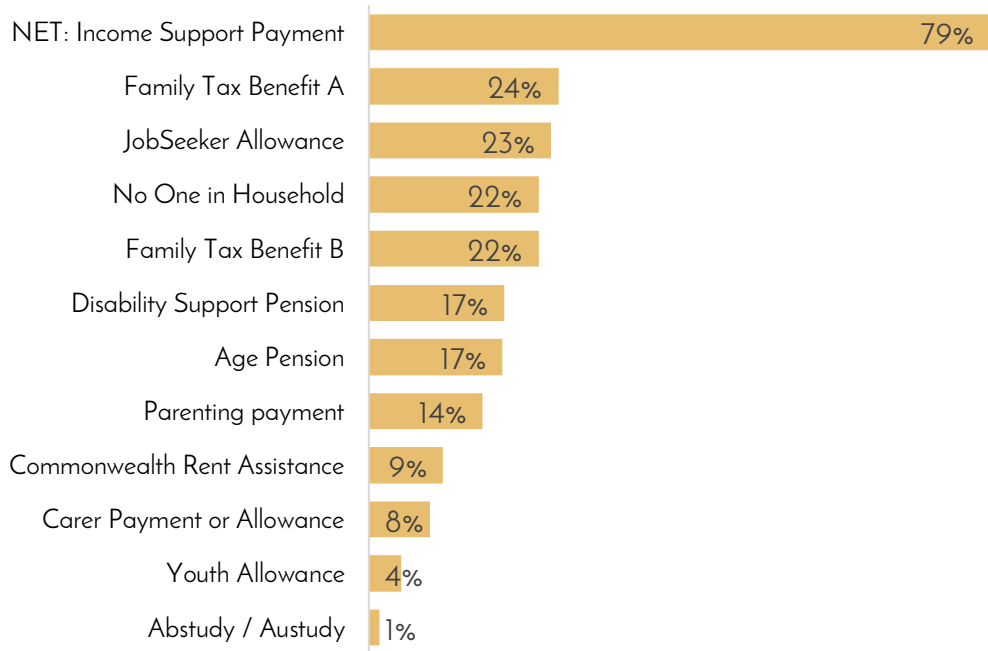


Figure 36. Income support payments



Q5. Including all pensions and allowances, is your weekly household income AFTER TAX more than, less than or about the same as [INSERT P VALUE] per week?
Q41. Do you or anyone in your household receive any income support payments from Centrelink (not including childcare subsidies)?
Q39. Which of the following best describes what you do?
Base: Total respondents, n=436

Figure 37. Housing status

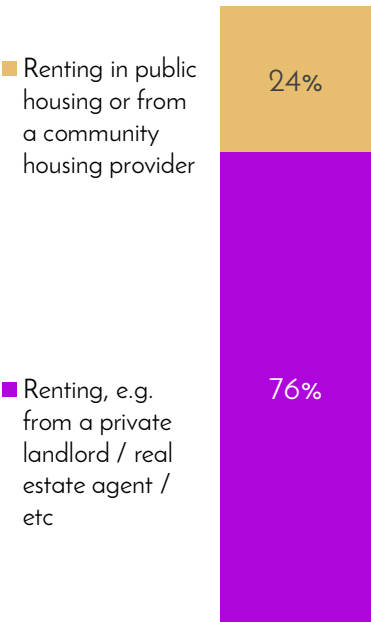


Figure 38. Rent (Per Week)

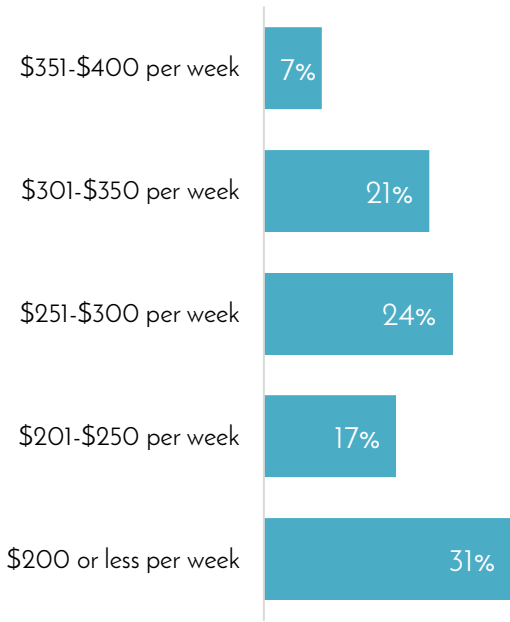


Figure 39. Household size

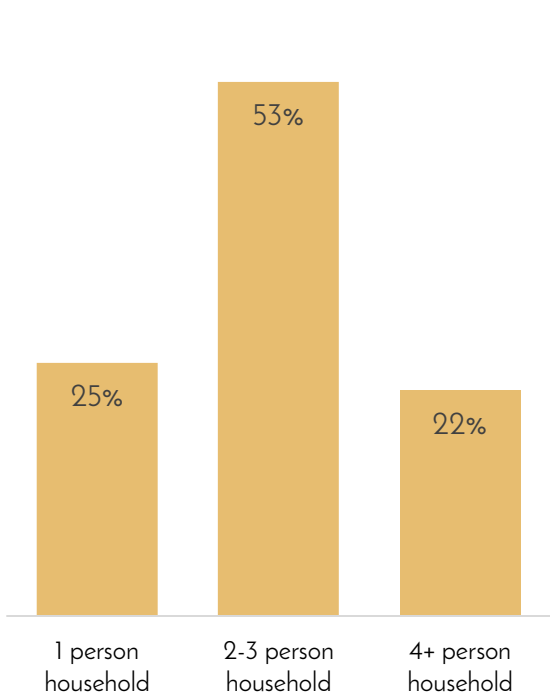
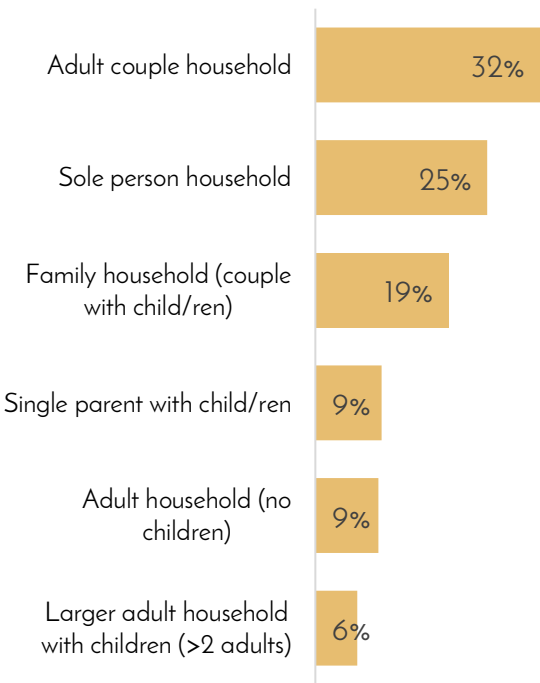


Figure 40. Household structure



Q6. What best describes your housing status?
Q7. How much in total is your home per week in rent?
Q3. How many adults (i.e. persons over 15 years old) live in your household (including yourself)?
Q4. How many children (under 15 years old) live in your household?
Base: Total respondents, n=436

thank
you.



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Access to energy efficiency for low-income renters in SA



Study of low-income renters' access to energy efficiency and time of use tariffs in South Australia: preliminary results.

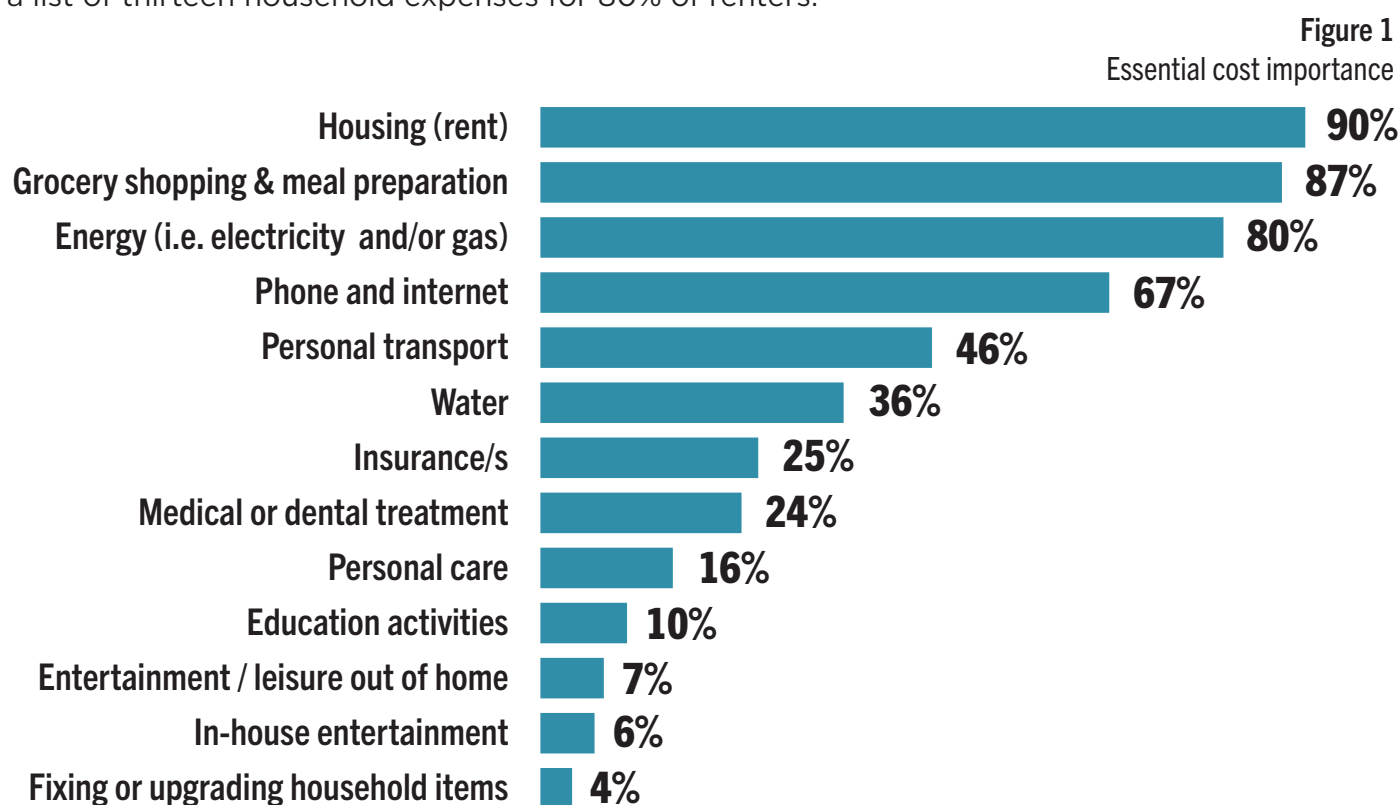
In March 2021, SACOSS with Mint Research undertook a survey of low-income renters to understand energy use, costs and accessibility of the Retailer Energy Productivity Scheme

(REPS) and time of use tariffs. A total of 436 survey responses were collected across metropolitan and regional SA.

Results from the survey show that overall, energy costs are a big expense for renters ranking third out of all essential costs after housing and food. The research also showed that there is limited awareness and very low uptake of the REPS and time of use tariffs among renters. Low income renters are paying high electricity bills and missing out on energy efficiency upgrades that could improve the thermal comfort of their homes and reduce costs.

ESSENTIAL COSTS

Energy costs were considered a very high priority in the household budget, ranking third out of a list of thirteen household expenses for 80% of renters.



ELECTRICITY BILLS

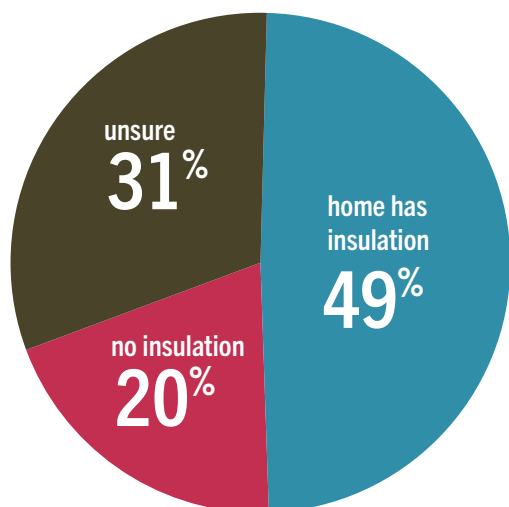
Almost half of respondents (45%) reported electricity bills of more than \$300 per quarter with 18% of respondents having quarterly electricity bills of \$500 or more. Reports of larger bills were common among households with four or more persons (40%) as well as younger and middle-aged respondents (23% and 22% respectively). Lower bills were more common among people aged 55 years and over.

ENERGY EFFICIENCY

Three in four respondents reported having at least one energy efficient appliance and a third of respondents (34%) stated that most or all of their appliances were energy efficient. The older and middle-aged cohorts were more likely to have energy efficient appliances (45% and 42% respectively), with the younger cohort more likely to report not having energy efficient appliances.

Half of the survey respondents stated their homes had insulation (49%), with 64% of those respondents aged 55 years or older. One quarter of respondents were unsure and 20% of respondents reported having no insulation in their home.

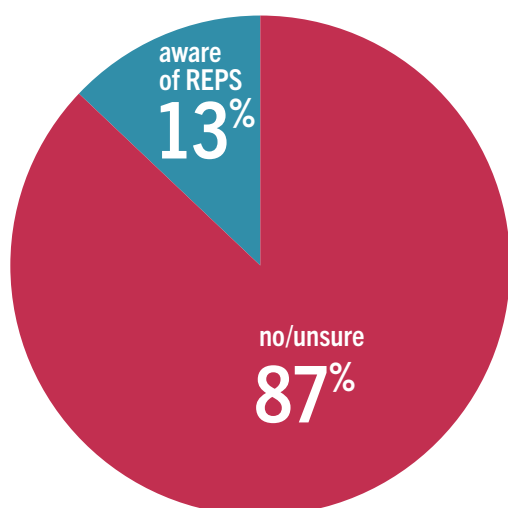
Figure 2
Home insulation



AWARENESS OF RETAILER ENERGY PRODUCTIVITY SCHEME

Awareness of the REPS was low at 13% across all survey respondents. Only 5% of respondents had contacted their electricity retailer to enquire about energy efficiency incentives under the program. The low awareness of REPS may indicate that renters are missing out on improving the thermal comfort and energy efficiency of their homes. Four in five people surveyed would find it helpful to have more information about REPS and how to access energy efficiency assistance.

Figure 3
REPS awareness

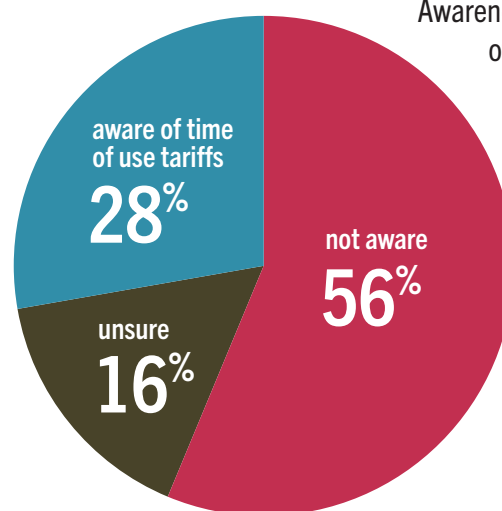


TIME OF USE TARIFFS

To participate in time of use tariffs, households need to have a Type 4 meter (commonly referred to as a smart meter). Survey data showed that 29% of people stated they had a smart meter, with 12% of these having solar panels. Figures from SA Power Networks show that approximately 22% of customers in SA have a smart meter, with 12% of people with a smart meter having solar.

Only 28% of people are aware of retailers' time of use tariffs, with 56% of respondents unaware.

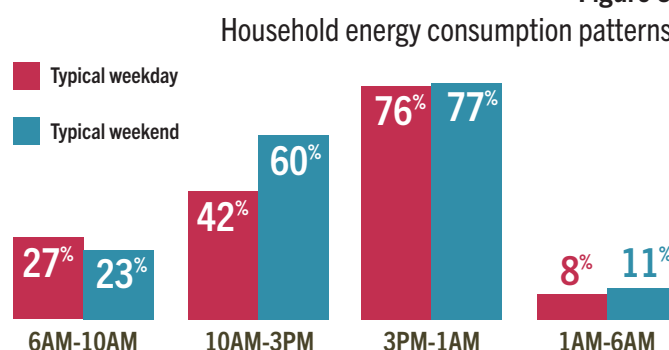
Figure 4
Awareness of time of use tariffs



ABILITY TO SHIFT ENERGY USE

For the vast majority of people, household electricity use occurs after 3pm and before 1am, both during the week and on weekends (76% and 77% respectively). Less than a third of people (31%) feel very confident in being able to shift their household energy usage to the middle of the day to take advantage of lower time of use tariffs (where offered) in SA from 10am to 3pm. Many households do use more electricity at this time during the weekend (60%), suggesting that cheaper tariffs between 10am to 3pm on weekends may benefit some households.

Figure 5





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