Investigating Household Decision-making about Energy and Electricity Prices: Qualitative Phase

Summary Project Report
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Household Energy Decision-making and Electricity Prices

- This project that was undertaken by the QUT Business School, CitySmart, and the University of the Sunshine Coast, and funded by Energy Consumers Australia, Energex, Endeavour Energy, Essential Energy, Western Power, TasNetworks, Ausgrid and Ergon Energy.
- A total of 45 households and 118 people took part in the research interviews, which covered locations across Queensland, New South Wales, Western Australia and Tasmania. The data from these interviews were de-identified, collated, reviewed and analysed by a team of QUT and USC researchers.
- This summary outlines the key insights we gained from the qualitative phase of this study.

Background

Changes in the Australian Energy Market

- Australians have always been aware of the importance of using electricity wisely. However, during peak times supply and demand may not be balanced. For example, many people use electricity when arriving home from work and cooking dinner, but fewer people use it during the day. Anyone who has used a bus at 5pm one day and 1pm the next day knows how different demand can be at different times of day (and has probably wished that demand would be more even!).
- Electricity providers are looking for ways to provide a better balance in supply and demand for customers so that they can ensure a safe and continuous supply of electricity. One method of doing this is to introduce a form of dynamic pricing called Time-of-Use (ToU) pricing, which means consumers pay more for electricity at busy times, and less during quieter times. This means that consumers will need to have the information required to make informed choices about how they use electricity.

A Complex Market

- The Australian energy market can be complex, leading consumers to find it difficult to access and understand information about prices. With pricing models changing in Australia, it needs to be easy for consumers to make informed and appropriate decisions about their own use of electricity.
- While it was clear that consumers would need more information to make these educated decisions, the best way to provide this information in order to cater to the individual needs of different households was unclear.

Time to Learn More

- This project was therefore created in order to explore the needs and unique characteristics of different households, as well as asking them how they would like to receive information, and what type of assistance would suit them best. From this understanding, the study generated insights and also created five distinct types of household, called personas. These findings will offer support to policy development and consumer education programs in the Australian market.

The Next Stage

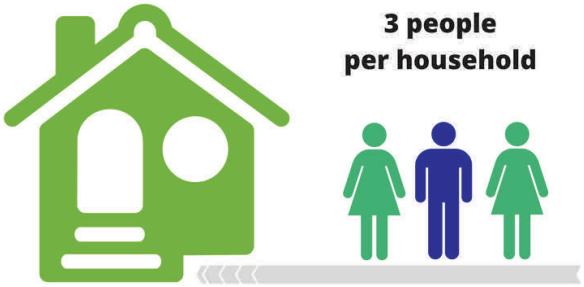
- Taking on board the findings from the interviews, the researchers have conducted and are now analysing the results of a national survey. This survey will help apply the interview findings more broadly, and provide additional insights to ensure a stronger understanding of what different households need and prefer when it comes to making informed decisions about their electricity use behaviour.

Size of the Study

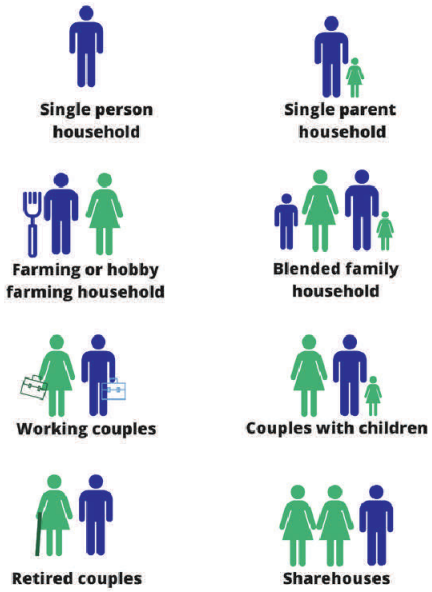
45 households participated	118 individuals participated
33 households were from metro areas	90 were adults
12 households were from rural areas	28 were children

Demographics

- The average age for adults (76% of sample) was 44 years, the average age for children (23% of sample) was 10 years.
- Gender was balanced with 60 females and 57 males.
- On average, each household contained 3 members.



- A wide range of incomes and occupations were represented with $78,000 median income, and median highest-education level was school-level (45%).
- The majority of participants lived in their own home that they owned/under mortgage.
- Household types varied from single-person to sharehouses (see below), however, the majority of participants were from a family home that was shared



Insights

The language of electricity is not consumer-friendly

The language used to talk about electricity was not perceived as accessible and meaningful for all. Across all types of household decisions, the common element is often the language of money not terms such as tariffs. A large part of how people make decisions hinges on the dollar amount—and this is the same across different types of purchases: holidays, fridges, and electricity bills. Language like 'kilowatt hours (KwH)' and 'tariffs' may just add to the complexity of electricity and decrease consumer engagement. Consumers indicated a strong preference for communication in their own language, and in a format relevant to their immediate needs.

Households have a style of decision-making

While the research did reveal expected differences between low and high involvement purchases, all households revealed a tendency to make decisions the same way regardless of the nature of the purchase. So the same decision-making style was applied to electricity as for selecting a mobile phone plan or even a house.

Awareness of tariff reform is low

At this stage, most people are not familiar with the concept of tariff reform and are largely unaware of the different electricity pricing plans that are available, or that may become available in the future. Specifically households could not accurately state the cheapest time of day/day of the week to use electricity. It is unclear to electricity consumers whether tariff reform will reduce their bills.

Time of Use pricing is preferred

Time of Use pricing is often perceived less negatively than tariff reform in general, because it provides concrete details that enhance understanding. In particular. Time of use pricing can be understood in the context of familiar pricing scenarios, such as for airline or movie tickets.

Households care about the bill amount, not electricity itself

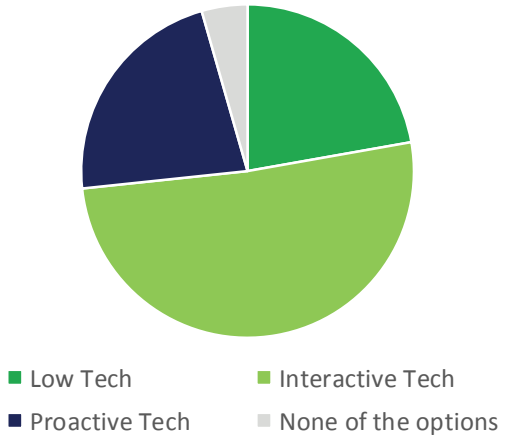
The majority of households identified that electricity is not top-of-mind, and is only thought of when the bill arrives. For some households, electricity is considered even less often, owing to direct-debit and automated payment approaches.

Changes to electricity prices need to show strong value for customers, but priorities differ

Most people tend to see 'tariff reform' as an industry-led initiative and not a customer-led one. Therefore it is likely that customers will perceive this changes as a negative one, and as something that is likely to cost them money, convenience, or comfort. Communication from the industry needs to centre around the customer and how tariff reform is solving one of *their* problems, not the industry's problems. This may be achieved through the positive associations that customers themselves have identified: the potential for lower bills/increased value for money, the chance for increased control, and greater visibility.

Most households are happy to receive assistance with learning about electricity prices.

- The majority of households that chose a type of technological assistance picked the interactive option (51%), with proactive technology and reactive technology options both coming in at 22% respectively.

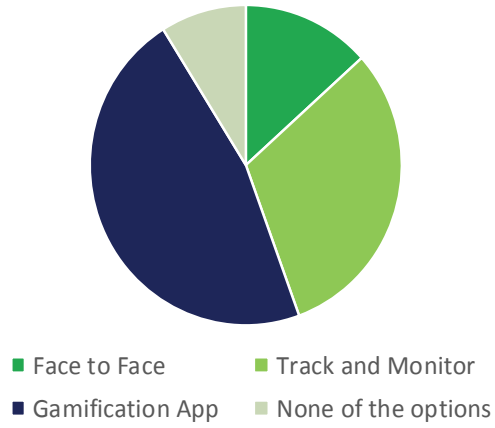


- Reasons given for this preference were: households wanted assistance, but didn't want to be controlled – and they wanted more than the tips already offered on energy related websites.

Households like the option of having fun *and* being able to track their own usage

- The majority of households (47%) selected the gamification option – an augmented reality app –as their preferred option for engaging with electricity price changes. Often the reason for this was because it was accessible, instant, or a great learning option for households with teenagers and children.

- The track and monitor option (a smart meter and associated app) also proved popular (31%), with households again desiring the instantaneous engagement with their own behaviours.
- Face to face options held less popularity (13%), with households often indicating that this type of assistance was already offered through energy audits and similar services.



Personas

As a result of the research, five household personas were developed. Personas are a way of understanding the characteristics of certain types of household, almost like a 'household personality' when it comes to electricity use. While not representative of everyone, most households will see some of their traits represented here.

In my household we take turns in leading the decision -making. We have household rules to help us work together. We wait for a problem to occur before making changes because we are busy. We rely on technology to do things for us.

In my household we don't have a lot of rules, we share decision-making and everyone gets a say. We like technology to be fun as well as efficient. We prefer technology that assists us to manage our household.

In my household we are all independent and we like to figure things out for ourselves. We actively seek information before a problem arises, and we trust technology to do things for us.

In my household we work together for common goals. We know what we are doing. When something new comes along we want an expert to assist us in making sure it is right. Technology needs to fit in with our way of doing things.

In my household we each have expert roles in finding information to make household decisions. One person tends to be in charge. We like things to run smoothly and like to use technology we trust and can control.

We are grateful for your input into this project. The findings will be used in assist the energy market to innovate in their delivery of electricity prices. The research will also be published in academic articles to build the body of knowledge in this area and as part of teaching resources. Please feel free to contact us if you would like further information.

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