Highlights Paper

ATA Consumer Tariffs Preferences Survey

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1.0 Document Information

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Promoting Renewable Energy, Energy Efficiency and Water Conservation since 1980

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2.0 About the Survey

With support from Energy Consumers Australia, the Alternative Technology Association (ATA) undertook a survey regarding small energy consumer attitudes towards cost reflective tariffs.

The survey was electronic, using the online tool Survey Monkey[1].

Design

Many people and organisations, including consumer advocates, were consulted at the survey design and prototyping stages. Nearly all of the feedback provided was able to be incorporated. (The errors and flaws remain ATA's.)

Criteria

Energy consumers who met the following criteria were welcomed to take the survey:

- Adults living in Australia;
- Home connected to the electricity grid;
- Consumers with some awareness of the household's energy bills; and
- Consumers with some say over the household's choice of appliances.

Length

The survey took around ten minutes to complete. A total of 382 respondents started the survey; with 349 respondents completing it. The balance dropped out at some point along the way, which is unsurprising being a voluntary online survey taking 10 minutes.

Currency

Responses occurred largely between the end of October and December 2015. The survey remains open at the time of writing (February, 2016) as there is no compelling reason to close it off[2]. People who meet the criteria are welcome to take the survey to share their tariff preferences.

Deliberative Research

This survey brought essential context to the table, then asked for the respondent's opinion. Information was provided in preambles to sections, but also the structure of the survey provided an educational experience for respondents. The full context is provided below – with the survey text quoted in italics.

Potential respondents were given this context at the outset:

> *Cost reflective tariffs are being developed and implemented by energy businesses across Australia. By more closely aligning the way we pay for electricity consumption with the costs of providing electricity, the fairness and efficiency of the electricity distribution system can potentially be improved.*

And told these were the objectives of the survey*:*

> *Cost reflective tariffs will be a change for most consumers. Some consumers will pay less than they do today, and others will pay more. ATA is collecting information about what the community thinks about cost reflective tariffs to help with our consumer advocacy, as well as that of other consumer advocates.*

[1] ATA accesses a free version of Survey Monkey, which does not include reporting statistical significance.
[2] The web address is *https://www.surveymonkey.com/r/RV2S3PQ*.

Promotion

The survey was promoted through ATA's existing networks (e-bulletin, Facebook and Twitter) and via other consumer and community organisations that we partner with. As some of the content is not universally supported among consumer advocates, ATA worked hard to make the language as neutral as possible.

This paper provides a high level overview of the survey findings – focussing mainly on the headline results. There are many respondent segments which could be evaluated in the future.

Finally, ATA wishes to sincerely thank all those who participated in the survey.

2.1 About the Respondents

The profile of the first 382 respondents (as at February, 2016) is quite distinctive, as follows:

- Disproportionately regional and rural: 54% live in a capital city and 21% live in rural areas.
- Disproportionately home-owners (93%).
- Disproportionately male (77%).
- Mainly older: Most common age groups are 46-60 (38%) and 61-70 (31%).
- 24% qualify for Federal concessions.
- 51% live in a household of two people.
- Fairly representative spread across state and territories.
- Little diversity culturally and/or linguistically: 83% were born in Australia, 98% speak only English at home.
- 83% are ATA members.
- Home based[3]: In a typical week at least one person is always at home for half (51%) the respondents. Only 7% spend 0 weekdays at home.

[3] The question asked was "*In a typical week, how many weekdays would you or others in your household spend at home DURING DAYTIME for large periods of time (such as working from home, with pre-school children, or the elderly)?*"

3.0 Summary of Results

3.1 Starting Point

We all expect safe and reliable electricity to be delivered to our homes as and when we need it. So as to avoid blackouts, our electricity grid needs to be able to meet peak demand. Peak demand is the maximum demand on the electricity system and often occurs in late afternoon or evening. Cost reflective tariffs involve a new charge for energy used at those peak times, and lower charges at other times.

Question 1: How confident are you that you could identify the appliance that uses the most energy over a 30 minute period in any month?

Question 2. How confident are you that you understand when your household's peak electricity demand occurs?

Question 3. How confident are you that you could easily access relevant information regarding your peak electricity demand in the last year?

Three quarters of respondents were confident (30%) or very confident (45%) that they could identify the appliance that uses the most electricity in any 30 minute period over a month.

84% were "confident" or "very confident" that they understood when their household's electricity peaked.

However there is a problem with easily accessing information. Only 44% answered with "confident" or "very confident".

ATA strongly advocates for better information to be made more accessible to people about their energy usage. Especially where smart meters exist, retailers and/or distributers should be required to make this information easily accessible.

3.2 Seasonal Energy Charging

Electricity networks cost a lot to build but little to use. Existing tariff structures for households do not accurately indicate the impact of peak energy demand on the need to build more networks.

Seasonal pricing typically involves charging more for energy used in the three or four warmest months of the year, and less in the remaining eight or nine months. This reflects the costs to supply electricity in different seasons.

Question 4. How willing would you be to pay $50/month extra for 4 months of the year if bills in other months were lower so you'd be better off over the year by $100-200?

Question 5. How willing are you to pay extra for the network expansion required for your own air-conditioning use?

Question 6. How willing are you to pay extra for the network expansion required for other people's air-conditioning use?

People were willing to experience fluctuating electricity prices over the year, with 70% answering they were "willing" or "very willing" to Question 4.

With respect to paying for the network expansion for their own air-conditioning use (Question 5), only one quarter said “willing” (18%) or “very willing” (6%). The most common answer was “very unwilling” (27%). Nearly as many were “unwilling” (25%).

More unpopular was paying for other people's air-conditioning use (Question 6). The vast majority are unwilling, with 51% responding “very unwilling” and 31% “unwilling”.

3.3 Peak Demand Charging

Households and small businesses currently pay for the costs of electricity distribution based on their consumption over the whole year, rather than their contribution to peak demand.

There are a number of different types of energy charges that are considered more “cost reflective”.

One is a new ‘peak demand’ charge, where consumers pay for the highest half hour of energy usage over a course of a month. The charge would usually only apply late afternoon and early evenings (for example 3-9pm or 4-8pm). In return the amount charged for energy used at other times is reduced.

Some consumers will experience higher bills with ‘peak demand’ charges and some lower. Many consumers will see little difference. It is generally accepted that the majority of consumers will be better off (or at least no worse off) under ‘peak demand’ based charging, however some will be materially worse off.

Eventually peak demand charges may become mandatory for all Australian households.

Question 7. How willing are you to accept the changes to energy charges as described above?

Over half of respondents were “willing” (35%) or “very willing” (23%) to accept peak demand charges. Peak demand charges are opposed by nearly one quarter of respondents who answered “very unwilling” (13%) or “unwilling” (11%).

Another cost reflective pricing option is called ‘critical peak pricing’. Critical peak periods are typically several hours long on a given day, and occur up to 10 times per year, possibly during heat waves. Customers would be warned of critical peak pricing event at least a day in advance. With critical peak pricing, those who can reduce their energy use on those days, or already have lower energy use, will save money, and others won’t.

Critical peak pricing may become an optional energy product for Australian energy users.

Question 8. How willing are you to consider “critical peak pricing” as described above?

Respondents were more willing to consider optional critical peak pricing (than mandatory peak demand charging). Nearly three quarters of respondents were willing to consider it, with “willing” at 39% and “very willing” at 33%. Only 18% were “unwilling” or “very unwilling” to consider critical peak pricing.

3.4 Demand Response Willingness

Load shifting involves moving the energy consumption of appliances away from peak times in return for lower bills. There may be opportunities in the future for businesses that pay households or other energy users for load shifting.

Question 9. If you could save money, how interested are you in load shifting?

A resounding 87% of respondents were interested, either 46% saying "very interested" and 41% "interested". Those who were interested were asked the next question.

Question 10. How willing would you be to engage with another energy company (in addition to your normal energy retailer) in order to benefit from a load shifting service?

Nearly 80% answered with willingness. This group were then asked the following question.

Your energy services company could send you a message at certain times with an offer to reduce your usage, which you can then choose to implement (by switching off an appliance or appliances) or not. This is a manual response.

Alternatively, you may agree to allow the energy services company to remotely access selected appliances (for example switch off a pool pump for a couple of hours, or cycle your air conditioner on and off). This is an automated response.

Question 11. How willing are you to consider these different responses?

Among this group of respondents, a manual demand response was generally preferred over an automated demand response. 88% were "willing" or "very willing" to consider a manual demand response (and 7% unwilling). 57% were "willing" or "very willing" to consider an automated demand response (with 30% unwilling).

Question 12. If it would save you money, how willing would you be to use your washing machine, dishwasher or clothes drier only at certain times of day or week?

88% answered "willing" or "very willing".

Question 13. For people with air-conditioner for cooling - If it would save you money, how willing would you be to limit your use of an air-conditioner up to 10 days per year (during warmer weather)?

There is a substantial group of respondents willing to limit their air-con use during warmer weather to save money. Of those with air-conditioners for cooling (n=249), 31% were "very willing" and 30% reported being "willing". Respondents who answered with some willingness were asked the next question.

Question 14. What is the minimum you would expect to be paid per year to limit your air-conditioner use on up to 10 days per year (during warmer weather).

Expectations seem fairly modest, with 47% expecting to save a minimum of $50 or $100 per annum. 22% said they don't know[4]. Caution is advised about how these results are used[5].

[4] The percentages for this question, and similar ones, exclude the people who answered "I don't have an air-conditioner".

Question 15. For people with swimming pools - If it would save you money and wouldn't affect your use of the pool, how willing would you be to limit your use of a pool pump on occasions?

Nearly 90% of respondents with swimming pools (n=53) were agreeable to this proposition, with 53% "very willing" and 34% "willing". Respondents who answered with some willingness were asked the next question.

Question 16. What is the minimum you would expect to be paid per year to limit your pool pump use on up to 10 days per year (during warmer weather).

The most common answer was a middle one, $100, which received 30% of responses[6]. Two thirds of responses were up to, and including, $100 a year.

3.5 Understanding Willingness to Pay

Currently disadvantaged and vulnerable energy consumers may be able to access one or more of hardship programs, debt/utility relief grants, concessions and energy efficiency programs.

Another option is lower energy bills for disadvantaged and vulnerable consumers (or yourself if you experience hardship) funded by higher energy bills from other consumers.

Question 17. How much extra are you willing to pay monthly on your electricity bill to improve energy affordability for the disadvantaged and vulnerable?

60% responded with an amount up to and including $3+. The most common answer was "$3+" with 30%. 21% chose "$0/nil". 18% chose "don't know". Nearly 10% selected "other please specify".

Very similar responses were found among the segment of non-concession holders[7] (n=264).

Question 18. (Optional) Would you like to tell us more about the reasons for that answer?

151 respondents answered this optional question. There was a spectrum of answers[8].

Some respondents disputed the validity of the question:

- "The question is too open ended." ($0/nil)
- "I don't know the size of the problem, other strategies that are possible, whether this is a time bound or open ended strategy etc etc" (don't know)
- "I don't know the number or extent of the recipients" (don't know)

[5] Our concerns are two fold. Firstly research is ideally targeted to the segment of consumers making high demands of air-conditioners. Respondents to this survey are self selected, and may not fall into this category. Second, Willingness To Pay research is complex (for example, see London Economics, 2011, 'Review of company surveys on consumers' willingness to pay to reduce the impacts of existing transmission infrastructure on visual amenity in designated landscapes' prepared for Ofgem.) To do it well requires focus, whereas the objective of this survey is broader. One of the biases that might affect these results is 'range bias', where respondents choose an option in the middle of the options provided.

[6] See Footnote above about Willingness to Pay surveys and 'range bias' in particular.

[7] "Non-concession holders included those who answered "don't know/not sure".

[8] The ATA access a free version of Survey Monkey. Accessing professional versions would include word clouds of the responses.

- “There are no financial details available on which to make a valid decision.” (don't know)
- “My taxes already subsidise state and federal government energy concessions. The phrase "energy affordability for the disadvantaged and vulnerable" is emotive, subjective, biased and not survey quality.” ($0/nil)

Many respondents expressed their support, either absolutely or qualified, for example:

- “A small additional charge to assist disadvantaged or vulnerable people is acceptable “ ($3+)
- “That's about a third of the cost of a glass of good wine at a restaurant!” ($3+)
- “$3 is less than the cost of a cup of coffee and we need to assist people less well off than ourselves. “ ($3+)
- “I don't trust energy companies but am willing to help those less well off. “ (Don't know)

Many respondents raised the question of who would be the beneficiaries, for example:

- “this would depend on the definition of disadvantaged & vulnerable.” ($2)
- “Assisting truly disadvantaged people in hardship is great, however; it depends on the actual rules for eligibility as arrangements like this are often open to rorting.” (Don't know)
- “Reasonable criteria for "disadvantaged and vulnerable" are my main concern. For instance, if pensioners are included, I would oppose subsidies for those who are actually well off, but have "managed" their affairs to secure a pension or seniors card. “ ($1)
- “If it's the disadvantaged and vulnerable, I'd be willing to pay a lot, but NOT if it is the electricity company that benefits.” ($3+)
- “For me, the key issue is how disadvantage is assessed and the level of meaningful assistance provided to folks in that situation. I reckon there are many genuine cases for assistance, but plenty more that don't warrant subsidies but instead require education to facilitate lifestyle change.” ($3+)
- “I'm sceptical such a scheme would run as intended. I would like to see some oversight of it to feel sure those for whom the benefit is intended are in fact getting it. (Old age and cynicism)” (Don't know)
- “Depends on who is classed as disadvantaged” ($2)

Others asked whether energy bills are the best place for social justice programs, for example:

- “I believe that it's the responsibility of government to ensure that low income households can maintain an essential service, ie an affordable energy supply, not other customers. “ ($0/nil)
- “If I wish to support the disadvantaged, I would prefer to do that that directly, not through a power company.” ($0/nil)
- “I would prefer that the disadvantaged were compensated through more progressive tax and more generous pensions than via an energy-specific mechanism. “ ($0/nil)
- “It's the responsibility of the company and governments to improve energy affordability for the disadvantaged, not individual consumers.”($0/nil)
- “It is the Government's responsibility to make it very affordable for all users.” ($2)

Many respondents took the opportunity to raise the benefits of energy efficiency, for example:

- "I'm not convinced that subsidising energy bills for disadvantaged and vulnerable consumers is the best thing to do for them. ie looking at usage/wastage of energy and energy conservation measures may be more helpful in reducing their energy costs. " ($1)
- "This amount would be based on the stipulation that these households are first assisted with energy efficiency measures so that the support is not being wasted. If it is going to this good cause then I'd be willing to pay a premium. If it is simply to assist them in being inefficient then it's unlikely I'd be happy paying anything at all. "
- "I would rather help the poor access solar or efficient appliances to encourage lower energy use" (50c)
- "The most vulnerable have the least efficient houses and appliances and pay a disproportionate amount of income in essential services. The money should go to improving their housing and equipment. " ($3+)
- "If the disadvantage can then access funding to implement energy efficiencies or install renewable energy sources then we all win." ($3+)
- "The vulnerable and disadvantages should be subsidised - through rooftop solar! " (don't know)
- "I'd prefer to focus (and fund) on providing advice on energy consumption reduction to this group (e.g. audit - plasma TVs, clothes dryers etc etc). Using education rather than subsidy. I would be prepared to contribute at least $5/month extra to trial an advisory service like this. Has it been done already? Has it worked? " (don't know)
- "I feel making in cheaper is not the answer , it masks to many problems like the efficiency of the home . That money would be better spent retro fitting with insulation etc.." ($0/nil)
- "I'd also prefer it to go towards an energy efficiency program specifically targeting this demographic, so that there's an opportunity to reduce the actual costs by influencing appliances/behaviour, instead of just offsetting a cost and not having any impact on the cost of the next month's power bill." ($2.50)

A few respondents specifically supported cost reflective pricing:

- "I believe that the cost reflective billing would encourage behaviour change and positively address current energy saving ignorance " ($3+)
- "Because current electricity costs are not mainly based on usage (so that usage is relatively cheap compared to fixed costs), I feel that there has to be a cultural shift in the way we value the price of usage and most people whether they are rich or poor can still reduce waste in their electricity usage and education should be a key, reinforced by appropriate types of pricing based on usage and peak usage. " ($1)

At least one respondent specifically mentioned the problems facing renters:

- "I'm willing to pay more, but I also think there should be many more comprehensive programs to help increase energy efficiency for low-income and rental housing." ($3+)

This was the only question that was open response. So people also addressed ATA's advocacy and the survey more generally:

- "I'm confused a bit about this survey, it seems a little like the "plant a tree & fly without guilt" idea, I'd like to see buildings constructed sensibly so as to not require air con., & the focus to be on reducing consumption. " ($3+)
- "I am not happy about this survey, for several reasons, which I will write to the two people mentioned to direct said concerns too, but I would strongly advise against the belief that products for "disadvantaged" can be relied upon." (Don't know)

Question 19. For people living in a city: How willing are you to pay extra so that regional, rural and remote consumers can access the same electricity rates as you?

The most common answer was "willing" at 41%[9]. 23% answered with "neither willing nor unwilling". These two answers account for nearly two-thirds of responses (65%).

Question 20. For people in rural and regional areas: How willing are you to pay more than you do now if the cost of energy supply was passed on to you?

By contrast, very few (3%) answered "very willing". Nearly even responses were recorded with "Very unwilling", "Unwilling" and "Neither willing nor unwilling" (22%-23% each).

[9] Percentages in this report for this and similar questions exclude those who answered "not applicable".

4.0 Discussion

Given its sample bias towards ATA members, it is reasonable to suggest that the survey responses obtained are reflective of 'early adopters' and 'pro-sumers' (pro-active consumers) in the market.

These consumers are more likely to have experience and engagement with demand side activities in (such as energy efficiency and distributed generation) and retail comparison and switching.

In this context, it is also reasonable to suggest that within the broader consumer-base, there exists a sub-set of consumers that are attracted to the opportunities that may be presented by cost reflective pricing, and have confidence in their ability to navigate the somewhat higher consumer risk that goes along with cost reflectivity in this space.

To summarise the results above, of the 382 respondents:

- 75% were confident or very confident that they could identify the appliance that uses the most electricity in any 30 minute period over a month;
- 84% were confident or very confident that they understood when their household's electricity peaked;
- 70% were willing to experience fluctuating electricity prices over the year in order to achieve an annual benefit overall;
- 82% were unwilling or very unwilling to pay for the network expansion for other people's air-conditioning use;
- 58% were willing or very willing to accept peak demand charges;
- 72% were more willing to consider optional critical peak pricing (than mandatory peak demand charging);
- 87% were interested or very interested in taking up a demand response service, with nearly 80% willing to engage with another energy company (in addition to their retailer) to do this.

The role of this sub-set of the broader consumer base needs to be properly considered by regulators, governments, energy businesses and the consumer sector in the transition towards cost reflective pricing.

Dependent upon tariff design and implementation, cost reflective pricing can involve greater risk and complexity for consumers. Given this, the principle of "consumer impact" must be given due regard by regulators and businesses in any transition.

As such, within any mandatory transition environment, the cost reflectivity of initial tariff designs are likely to be "soft" – only partially reflecting the true impact/cost of energy usage at certain times.

What these survey results demonstrate is that within any mandatory (or even opt-in) transition involving tariffs that are relatively soft, there remains the opportunity for networks and retailers to offer other, "peakier" (or stronger) opt-in cost reflective tariffs that would be attractive to the early adopter/pro-sumer market.

Properly designed, these would incentivise the kind of distributed energy/energy efficiency investment and behavioural energy management that would benefit both the consumer and the network – largely by reducing demand at peak times. Demonstrating success in this part of the market can then act as a catalyst for the expansion of cost reflective pricing into the future.