Testing the presentation of energy price information

Final report from the Behavioural Insights Team

THE
BEHAVIOURAL
INSIGHTS
TEAM

Executive Summary

As part of the implementation of Recommendation 3A of the Thwaites Review into the energy sector, the ESC commissioned the Behavioural Insights Team to conduct an online experiment to determine the most effective way to present information about energy plans in advertisements to consumers. Consumers saw a series of scenarios consisting of two hypothetical ads, and were asked to choose the cheapest in the first year (including all discounts).

We found that a headline that expressed the difference between the unconditional cost of the plan and the reference price as a percentage discount was most effective in enabling customers to correctly choose the cheapest plan.. This was particularly true for those with lower financial literacy and those from culturally and linguistically diverse (CALD) backgrounds. The worst performer was a headline that expressed the total unconditional cost as a single dollar amount.

In addition, we asked a series of further questions about energy behaviours. Notable results include the fact that around 5 in 6 consumers (83.2%) claim to pay on time, and that reported switching rates (both within and between providers) remain relatively low.

Overview

1. What we did
2. Main results
3. Additional insights about energy behaviours

What we did

Background

Recommendation 3A of the Thwaites Review into the energy sector seeks to standardise retailer practices by requiring all marketing to focus on dollar figures, rather than percentages or unanchored discounts. However, exactly how this is implemented is still to be determined.

A key finding from the Thwaites Review was that marketing practices by retailers generated substantial confusion. Notably, the presence of discounts has made it difficult for consumers to easily compare deals and identify the best option.

This trial aims to determine whether a specific format for marketing energy offers helps customers compare and select offers. This includes the way the total amount is presented, the way the amount is presented when compared with a reference price (dollars, percentages) and the use of credits. We note that the ACCC has produced guidance on national requirements around presenting prices and discounts in advertisements. This has informed the design of the treatment arms in our trial.

Trial design

This trial involved 2,023 Victorian respondents who were either the main or the joint energy decision-maker.

After answering some basic demographics, respondents were randomised into one of four treatment arms. They were then told they were going to be shown some energy plans, and they had to pick the cheapest for a relative (see instructions, right). This friend always paid on time (so was eligible for discounts). Respondents were also told they would receive an additional incentive for choosing correctly. They then saw 24 'scenarios', each consisting of two energy plans with different features.

We then asked a series of additional questions about their behaviours and interactions with the energy market. Finally, respondents answered some basic financial literacy questions and filled out some questions about their demographics. The full question list is provided in *Appendix 1 - Full question list*, with full regression results available in *Appendix 2 - Technical Appendix*.

We'd like you to pretend you're helping a relative choose an energy plan. This relative doesn't know much about energy plans, and they just want to make sure that they pay the least amount over the first year. Assume that they are similar to an average household in terms of their energy usage.

They always pay on time, so assume that they would be able to get any discounts for paying on time that are on offer.

We're going to show you a few pairs of possible energy plans - we'd like you to choose which one you think would be best for your relative.

If you are able to consistently pick the cheapest plan for them, you can earn an additional incentive.

The treatments

Each participant was randomised to see one of four treatments (see next slide). The treatments varied the way that the underlying information in the ads were presented - in particular, they varied the way the headline information was presented (as well as some of the body text).

All four treatments expressed the value of the plan in the first year in the headline including unconditional discounts and credits, but **not** conditional discounts (in line with national Electricity Retail Code requirements) The value was expressed differently depending on the treatment. All four treatments included standard disclaimer text (see right).

The four treatments were:

- 'Total Cost': the total unconditional cost in the first year was shown in the headline (top left)
- '% off': the difference between the unconditional cost and the reference price was shown as a percentage discount in the headline (top right)
- '$ off': as above, but the difference was shown as a dollar amount in the headline (bottom left)
- '% + $ off': as above, but the difference was shown as both a percentage and dollar amount (bottom right)

This offer is based on a residential customer in CitiPower's distribution area who consumes 4,000kWh per year on a flat tariff, with a reference price of $1,500. The reference price is set by the Victorian energy regulator, and is not set by energy companies. Your bill will be different depending on your actual usage. Fact sheets available at okenergy.com.au. For clear advice to help you decide if this is a suitable plan for you, contact us on (03) 9876 5432.

OK Energy

$1,358 in the first year

9% below the reference price

This offer is based on a residential customer in CitiPower's distribution area who consumes 4,000kWh per year on a flat tariff, with a reference price of $1,500. The reference price is set by the Victorian energy regulator, and is not set by energy companies. Your bill will be different depending on your actual usage. Fact sheets available at okenergy.com.au. For clear advice to help you decide if this is a suitable plan for you, contact us on (03) 8678 5432.

OK Energy

9% below the reference price

The total price in the first year is $1,358

This offer is based on a residential customer in CitiPower's distribution area who consumes 4,000kWh per year on a flat tariff, with a reference price of $1,500. The reference price is set by the Victorian energy regulator, and is not set by energy companies. Your bill will be different depending on your actual usage. Fact sheets available at okenergy.com.au. For clear advice to help you decide if this is a suitable plan for you, contact us on (03) 8678 5432.

OK Energy

$142 below the reference price

The total price in the first year is $1,358

This offer is based on a residential customer in CitiPower's distribution area who consumes 4,000kWh per year on a flat tariff, with a reference price of $1,500. The reference price is set by the Victorian energy regulator, and is not set by energy companies. Your bill will be different depending on your actual usage. Fact sheets available at okenergy.com.au. For clear advice to help you decide if this is a suitable plan for you, contact us on (03) 8678 5432.

OK Energy

9% ($142) below the reference price

The total price in the first year is $1,358

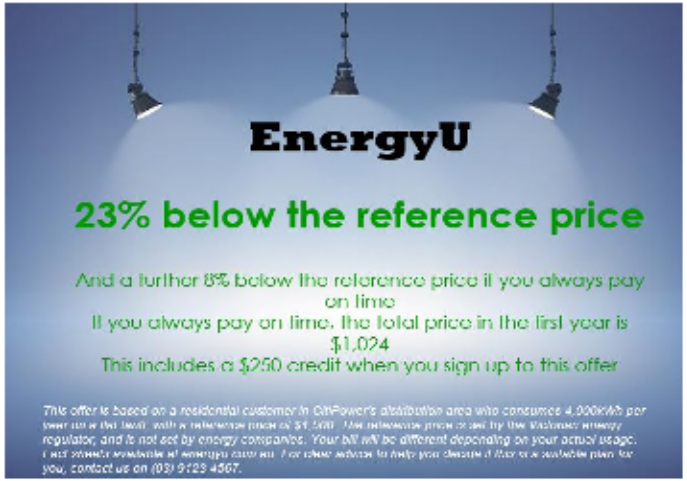
This offer is based on a residential customer in CitiPower's distribution area who consumes 4,000kWh per year on a flat tariff, with a reference price of $1,500. The reference price is set by the Victorian energy regulator, and is not set by energy companies. Your bill will be different depending on your actual usage. Fact sheets available at okenergy.com.au. For clear advice to help you decide if this is a suitable plan for you, contact us on (03) 8678 5432.

The scenarios

There were a total of 24 scenarios - each scenario consisted of two example energy plans, presented in the form of advertisements from hypothetical energy companies. The advertisements were designed to be representative of a magazine or web ad, or a still frame from a TV ad.

The order in which respondents saw scenarios was randomised. In addition, there were four possible energy companies and each scenario was randomised such that the two plans appeared to come from two different energy companies (randomly assigned for each scenario and each respondent).

Each energy plan in a scenario was designed such that it had either an unconditional or conditional discount, and either an unconditional credit or no credit. An example of one scenario is shown on the right. A full list can be found in *Appendix 3 - All scenarios and plans.*



Types of scenarios

10 of the 24 scenarios were designed to be ‘counter-intuitive’ - that is, a comparison based purely on the headline figures (i.e., including unconditional credits and discounts) suggested one plan was cheaper, when in fact the cost in the first year including all discounts was lower for the other plan. This was usually achieved by having a conditional discount - this would not be reflected in the headline figure, but it was the basis on which respondents were asked to make their decisions. This reflects the way many energy offers are currently designed. An example of a counter-intuitive scenario is on the right - note that based on the headlines, the second plan appears cheaper, but looking at the total cost including all discounts it is clear that the first plan is in fact cheapest in the first year.

In addition, the difference in dollar terms between the two plans in each scenario varied. We designated those with a difference of less than $80 as ‘small’ scenarios (8 in total), and those with a difference of over $200 as ‘large’ scenarios (9 in total).

Main results

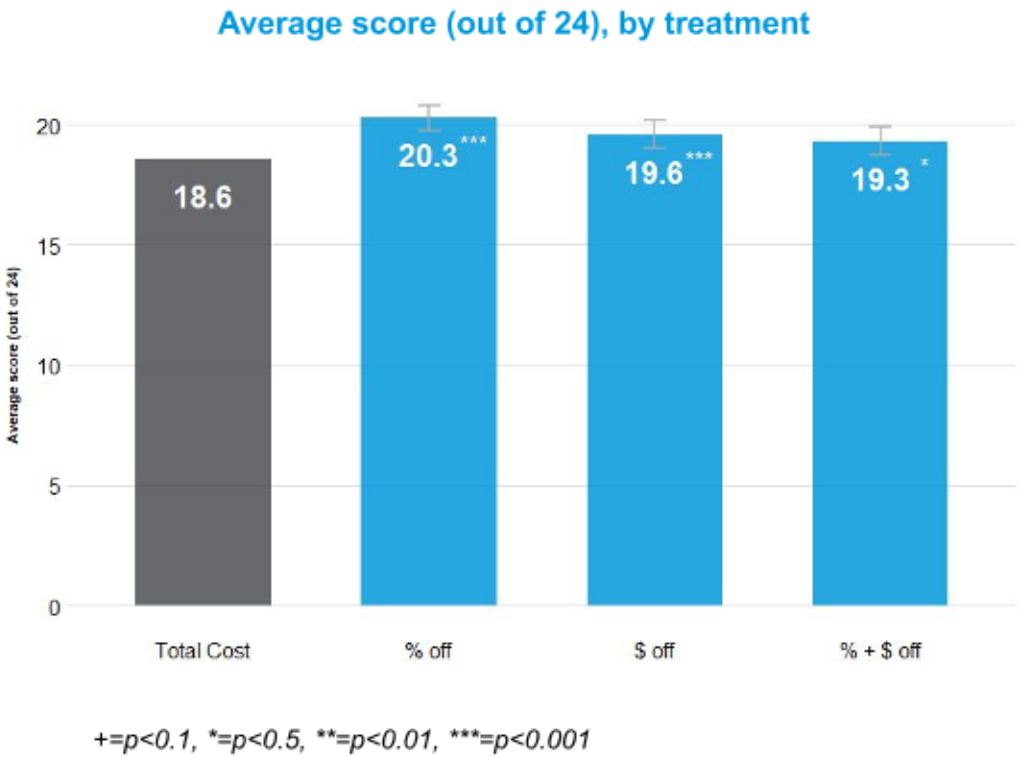
‘Total cost’ sees the worst performance

Treatments with a comparison to the reference price in the headline meant respondents were more likely to correctly identify the cheapest plan, with respondents in arms 2-4 answering between 0.7-1.7 more scenarios correctly. The best performing arm overall was the % off treatment, which saw respondents correctly identify the cheaper plan in 20.3 scenarios out of 24.

The relatively poor performance of the total cost arm is in line with our predictions - since the total cost headline only included the *unconditional cost*, we expected that the total cost might lead to poorer performance.

However, it is notable that the % off arm appears to be slightly ahead of the $ off and % + $ off arm - we would normally expect that the $ off or % + $ off arm would be the best performer (though some of these differences are not statistically significant at conventional levels).

We hypothesise that other arms that include dollar information convey the (incorrect) impression that the amounts in the advertisements are actual amounts to be paid. Conversely, a percentage in the headline means there will likely be conditions attached, and/or that the cost will vary, which encourages consumers to read the full details.



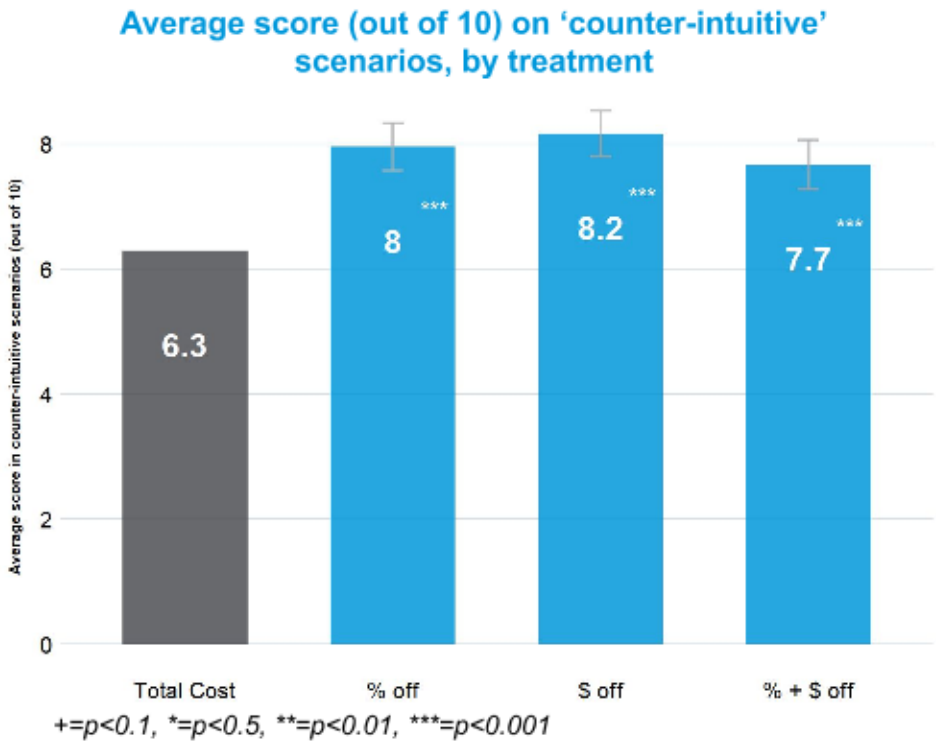
+=p<0.1, *=p<0.5, **=p<0.01, ***=p<0.001

This is mostly due to counter-intuitive scenarios

It appears that much of the difference between the total cost treatment and the other arms can be explained by the performance on 'counter-intuitive' scenarios. These were scenarios where a comparison based purely on the headline figures (i.e., including only unconditional credits and discounts) suggested one plan was cheaper, when in fact the cost in the first year including all discounts was lower for the other plan.

We hypothesise that this is likely due to respondents in the total cost arm seeing a headline that claimed to include the total cost in the headline, and not realising that there was additional information in the detail of the ad. They may not have realised that the total cost in the first year assuming all discounts was included further down in the ad.

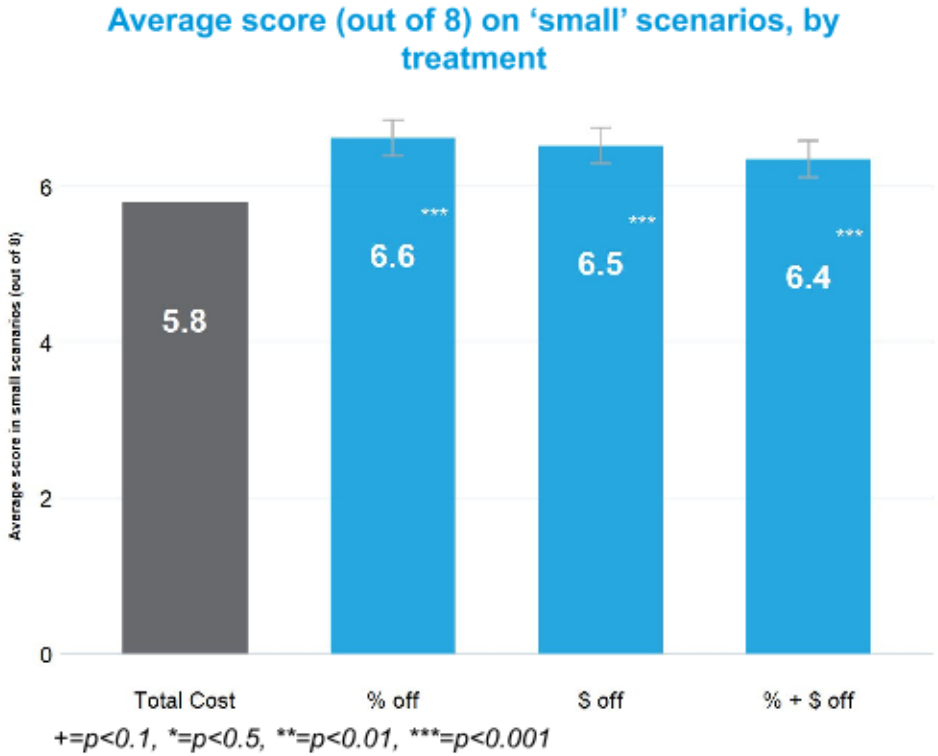
Alternatively, other respondents may have initially seen scenarios where the total cost in the headline was the same as the total cost including discounts, and then simply assumed that all scenarios would be similar. That is, they didn't realise that in later scenarios, the total cost in the headline was not the same as the total cost including all discounts.



This was also true for ‘small’ scenarios

Consistent with the above results, performance on scenarios that had a ‘small’ difference (less than or equal to $80 between the two plans) saw ‘total cost’ performing the worst out of all the treatments. All other treatments resulted in between 0.6-0.8 more scenarios answered correctly.

Notably, the treatment arms with reference price comparisons performed fairly similarly, as respondents had a similar likelihood of correctly identifying the cheapest plan.

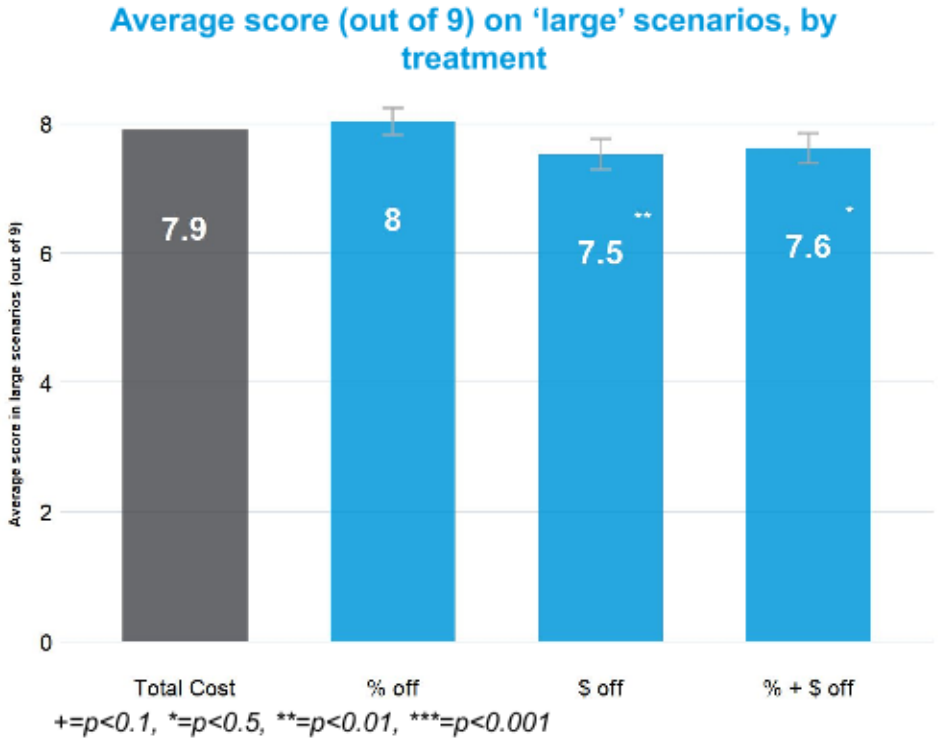


‘$ off’ arms saw poorer performance on large scenarios

Somewhat surprisingly, scenarios with a ‘large’ difference between the plans (over $200) saw no significant difference between the total cost and % off arms - but the $ off and % + $ off arms performed *worse* than the total cost arm.

It is not immediately clear why this difference has appeared - it may be due to there being relatively few counter-intuitive scenarios in the ‘large’ scenarios however it is noteworthy that % off remains the best performer overall.

In addition, it appears that respondents overall performed slightly better on scenarios with a larger difference, as compared to scenarios with a smaller difference. This may have arisen due to larger differences being more salient.



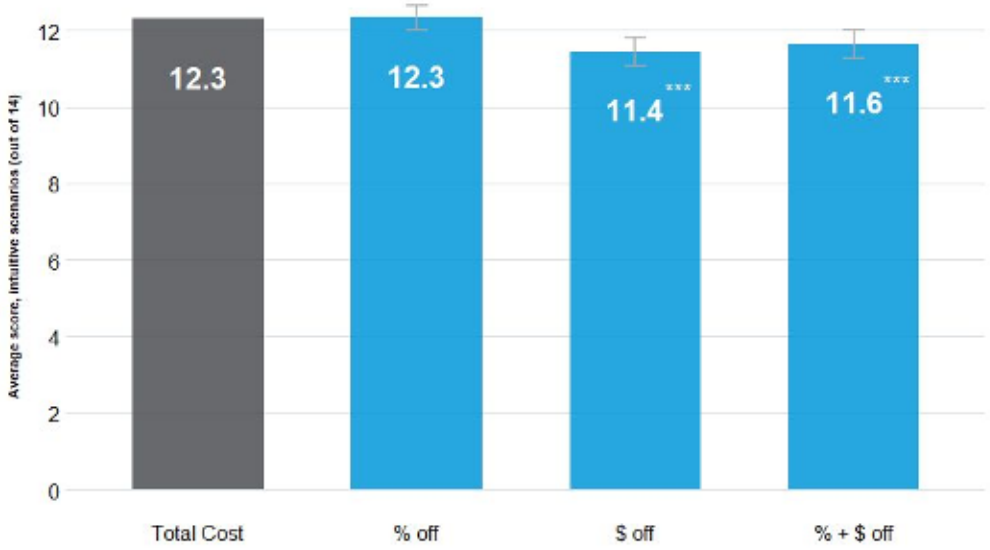
‘Intuitive’ scenarios saw different results

As additional exploratory analysis, we examined whether the results changed if we focused just on ‘intuitive’ scenarios - that is, scenarios that were not designated counter-intuitive. These scenarios had figures in the headlines that matched up with the actual correct answer.

We found that in these scenarios, the gap between ‘Total cost’ and ‘% off’ disappears, with both now appearing to have equivalent averages. The other two arms remain slightly worse. We hypothesise that a clear answer of what the total cost in the headline is makes it easy for people to select the cheapest option in the ‘total cost’ condition. We also hypothesise that ‘$ off’ and ‘% + $ off’ may have performed worse because they were slightly unfamiliar for consumers - if consumers are used to focusing on discounts, dollar information may be unusual and less natural to process.

Notably, all treatments saw respondents scoring the same or a slightly higher proportion of intuitive scenarios correctly, as compared to counter-intuitive scenarios. The main driver of intuitive scenarios was the fact that they had unconditional discounts - this suggests that it is easier for consumers to compare plans with unconditional discounts when ads are presented in the formats we used..

Average score (out of 14) on ‘intuitive’ scenarios, by treatment



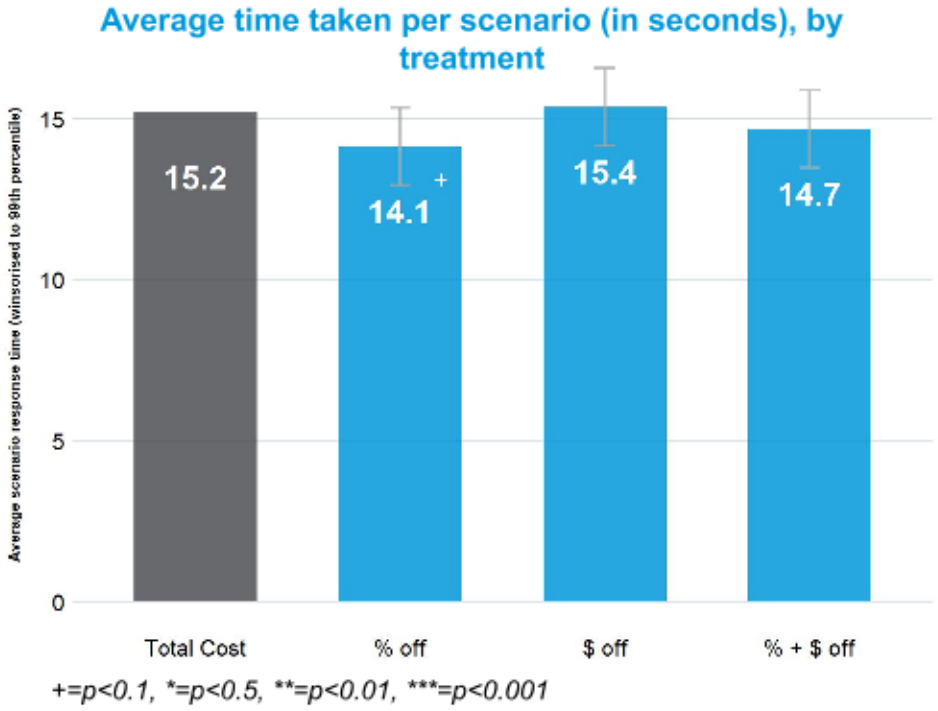
*+=p<0.1, *=p<0.5, **=p<0.01, ***=p<0.001*

‘% off’ may have led to quicker responses

We also measured time taken in each scenario by respondents (winsorised to the 99th percentile).

There was weak evidence (p = <0.1) that the % off treatment saw lower response times, of about a second per scenario on average. This is notable, given that the % off scenario also saw the best results - possibly indicating that the improved comprehension made scenarios easier (and thus faster) to process.

However, we note that these results are not significant at traditional levels, and all treatments saw broadly similar response times overall.



‘% off’ is most effective for low financial literacy scores

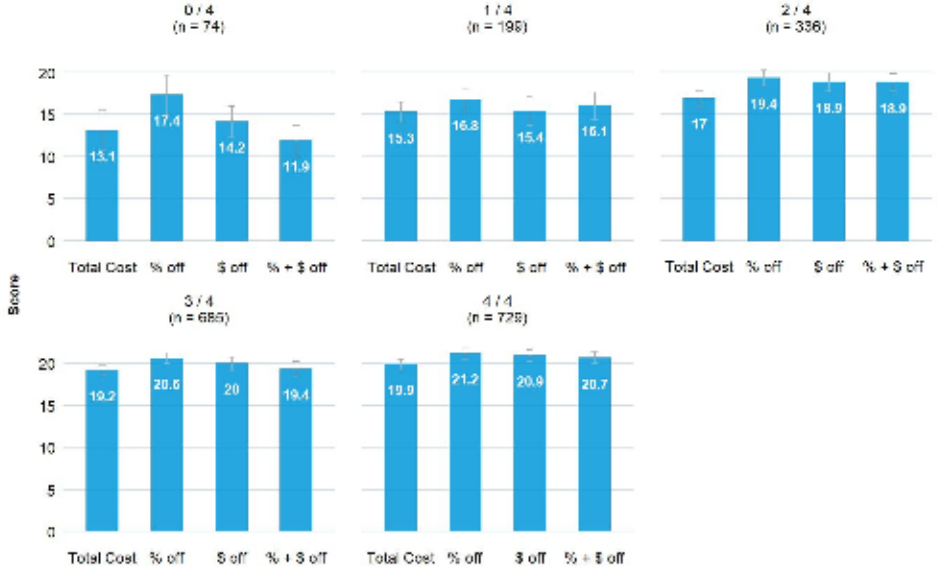
We also analysed results by financial literacy scores (calculated as a score out of 4, with higher scores indicating higher financial literacy). As expected, scores generally improve in line with financial literacy.

Interestingly, the difference between the treatment arms is quite stark for those with the lowest financial literacy - the % off treatment is comfortably better than all other treatments, by between 3-5 correct scenarios out of 24. This difference is statistically significant, despite the small number of people in the lowest financial literacy group. Notably, the performance of low financial literacy respondents in the % + $ off arm is statistically indistinguishable from chance (we would expect a person picking at random to score 12 out of 24).

The difference is less stark as financial literacy improves, though reference price comparisons generally increase the likelihood of respondents correctly identifying cheapest plan at all levels of financial literacy.

Reference questions: F1, F2, F3, F4

Average score (out of 24), by treatment and financial literacy score (0-4)

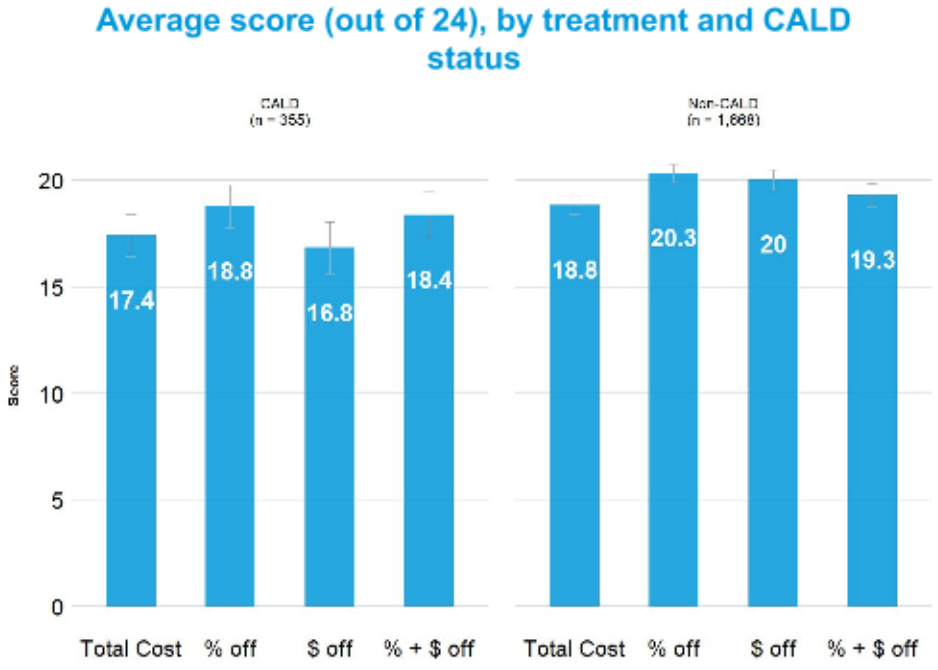


% off is most effective for CALD respondents

Respondents from culturally and linguistically diverse (CALD) backgrounds tended to have the highest scores on the % off and % + $ off treatment.

Performance was significantly worse (between 1-2 scenarios more incorrect) on other treatments.

Interestingly, for non-CALD respondents, the % off treatment leads to about 1 extra correct scenario as compared to the % + $ off treatment.



Consumers struggled with the relationship between the reference price and actual amount to be paid

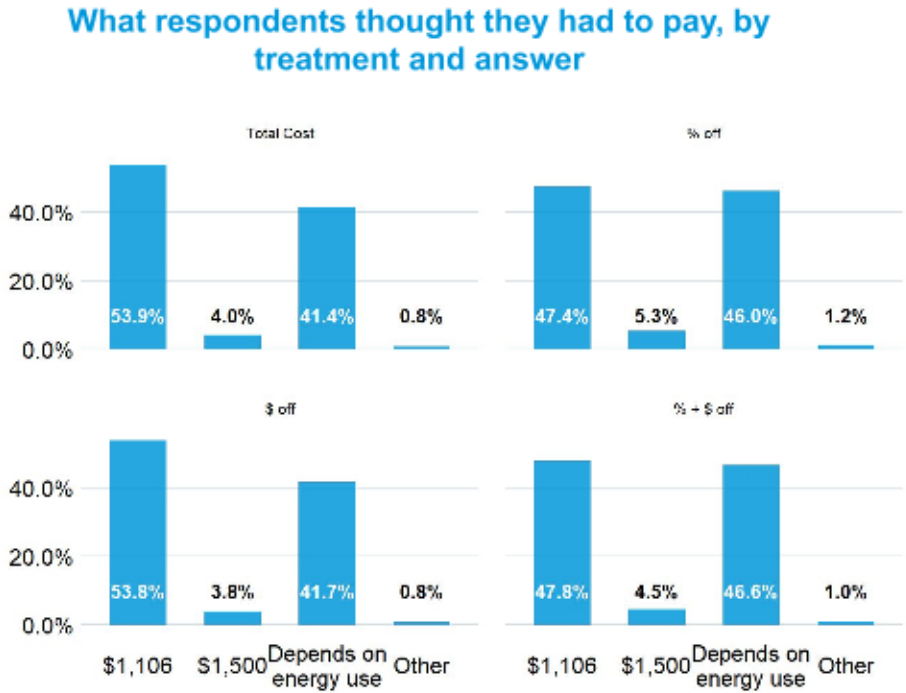
After the main scenarios, each respondent was also shown an excerpt of single plan - Plan A from Scenario 1 - with the layout following the treatment that they had been assigned to. They were then asked explicitly what amount they would need to pay - the options were:

- the total cost in the first year ($1,106),
- the reference price ($1,500),
- 'It depends on my energy usage' (the correct response), and
- Other

Across all treatments, the most common response was incorrect, with respondents most likely to select the estimated total cost in the first year. However, the next most common response was the correct answer

Interestingly, it appears as though the treatments that include a % in the headline lead to slightly more people answering correctly, by about 4.5-5.2 percentage points. We hypothesise that the dollar amounts may cause some consumers to think the amounts are fixed - whereas a percentage causes people to consider the fact that the amount saved will 'scale' depending on the underlying cost.

Reference question: T3



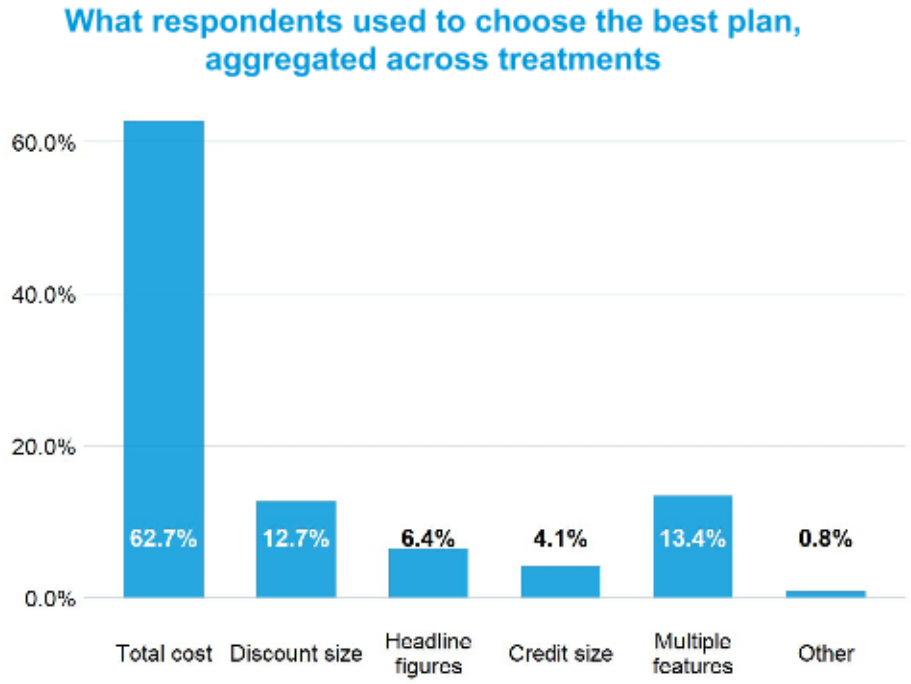
Most - but not all - focused on the total cost

After the main scenarios, respondents were also asked what they used to help them make their choices. The optimal approach would be to focus on the total cost - and indeed, almost two-thirds (62.7%) did so.

However, a substantial proportion focused on a range of different factors, with the discount size, headline figures, and credit size all being cited as driving factors. Around one in eight (13.4%) also cited that 'multiple features' drove their choice.

This suggests that, in the fact of substantial confusion from energy retailers, many consumers have developed their own heuristics or 'rules of thumb' to help them navigate the market.

Reference question: T1



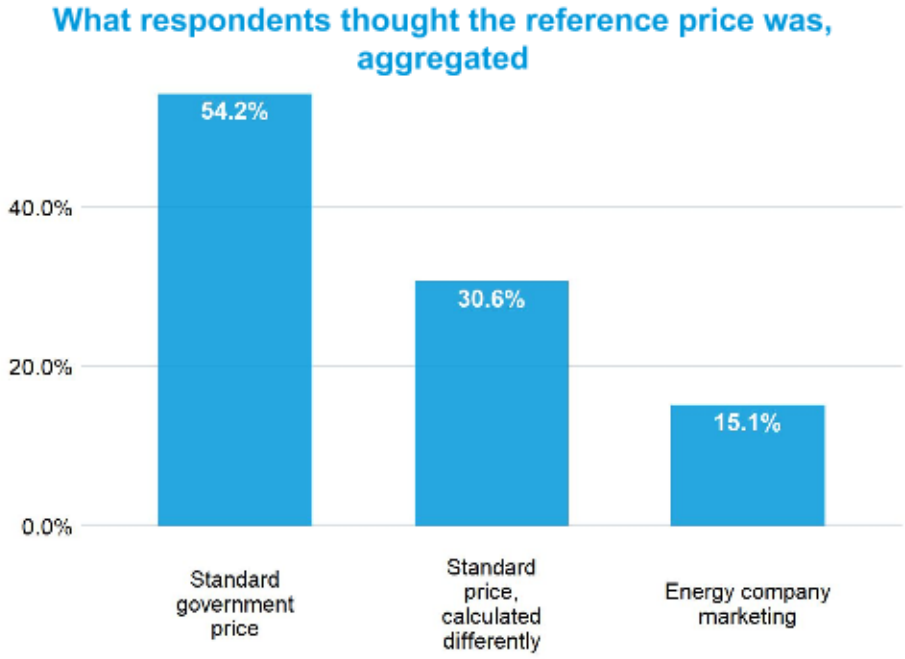
There is some confusion about reference prices

Just over half (54.2%) of respondents correctly identified that the reference price was a standard government price.

However, a little under a third (30.6%) thought that the reference price was a standard price, but calculated differently by each energy retailer. And notably, about one in six (15.1%) thought that the reference price was just meaningless marketing by energy companies.

This is notable given that a disclaimer about the reference price was included in each advertisement. One possibility is that as the disclaimer contained a substantial amount of text covering a range of topics, many respondents may have chosen to ignore it, considering it meaningless 'fine print'. As such they may have missed the commentary about the reference price.

Reference question: T2



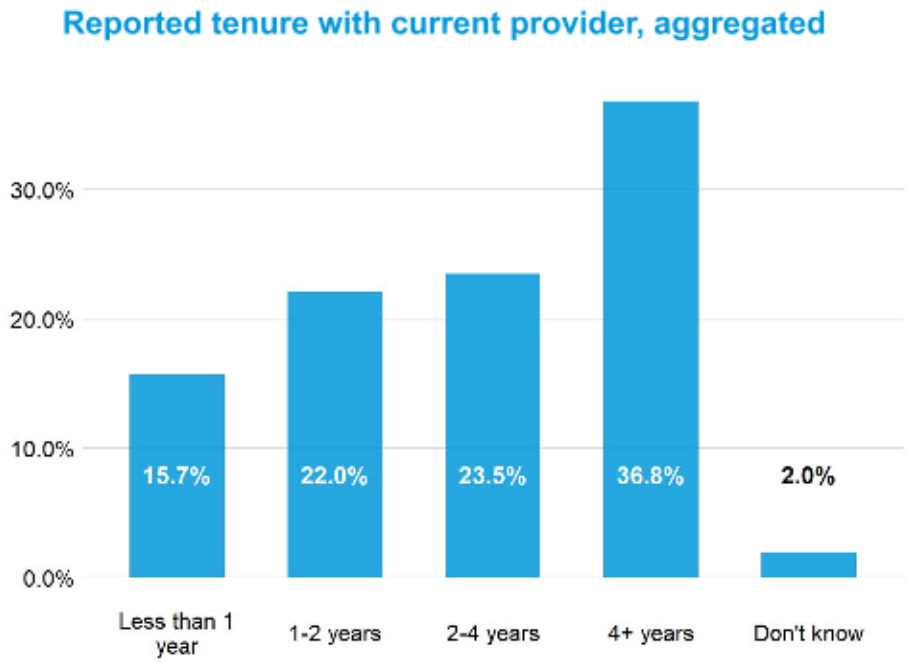
Additional energy insights

Relatively few consumers report switching

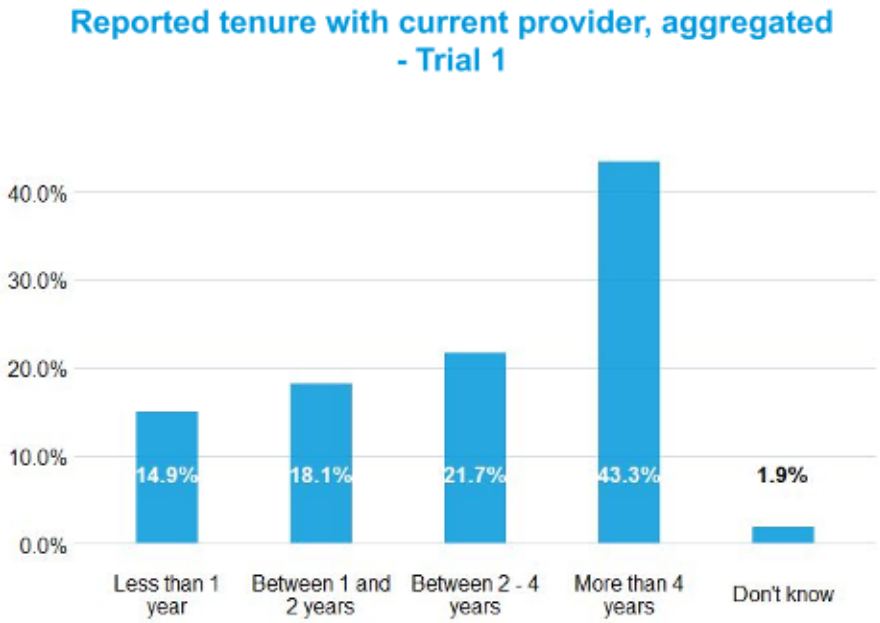
Consistent with previous research, we found relatively low rates of switching providers over the past year. There was also a substantial proportion of consumers that had not switched for over four years.

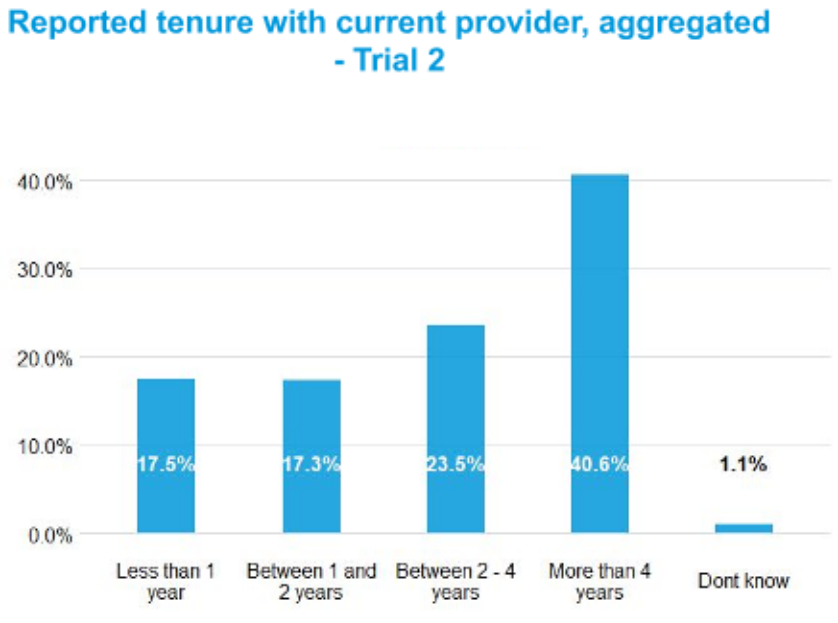
The results are slightly different to the results from previous trials conducted in 2018 (see charts on the following page). There appear to be fewer long-tenured consumers (4+ years), but slightly more consumers in the 1-2 years category. This may reflect natural randomness from the various samples, or it may reflect a small shift behaviour, where very long-tenured consumers have been gradually switching.

Reference question: P1



Reported tenure with provider, 2018 trials





Full report available https://www.esc.vic.gov.au/sites/default/files/documents/BIT%20Report.pdf

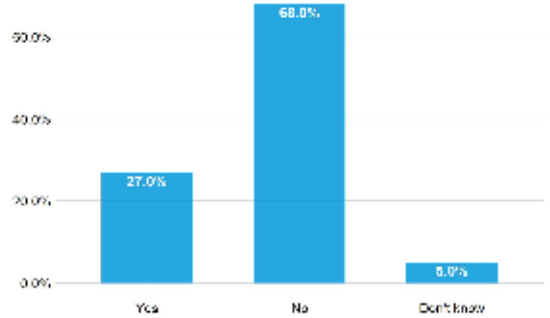
Recent switching is slightly more common

Respondents reported switching within their provider at higher rates - slightly over a quarter (27%) reported switching within their provider at some point, with a similar proportion (26.7%) reporting having switched plans or providers in the past 12 months.

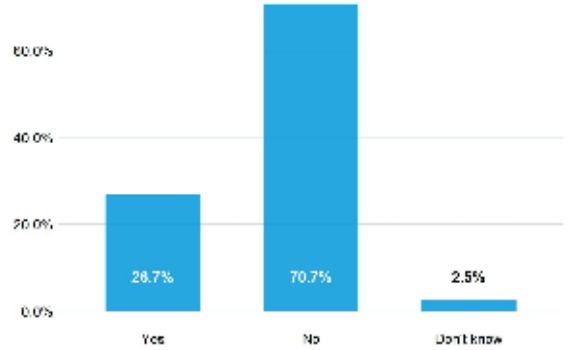
As with the previous question, these results are broadly consistent with previous trials conducted in 2018 (see charts on the following pages), albeit reflecting slightly lower rates of reported switching. Again, this is likely to reflect the random variation inherent in any sampling exercise, but could be reflective of broader trends. For example, given the substantial public and media focus on energy and energy prices, there may have been greater switching activity in 2018 as compared to 2019.

Reference questions: P2, P3

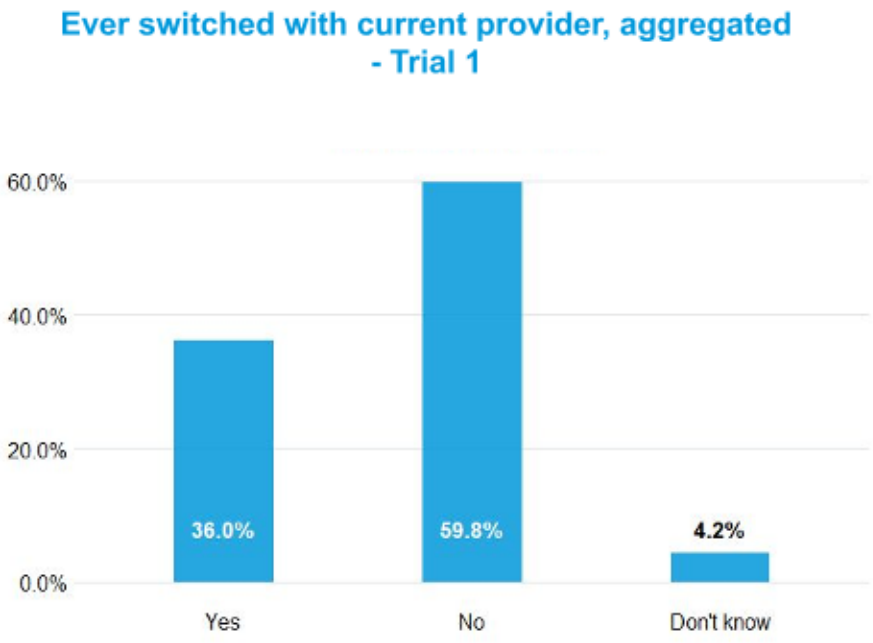
Ever switched plans with current provider, aggregated

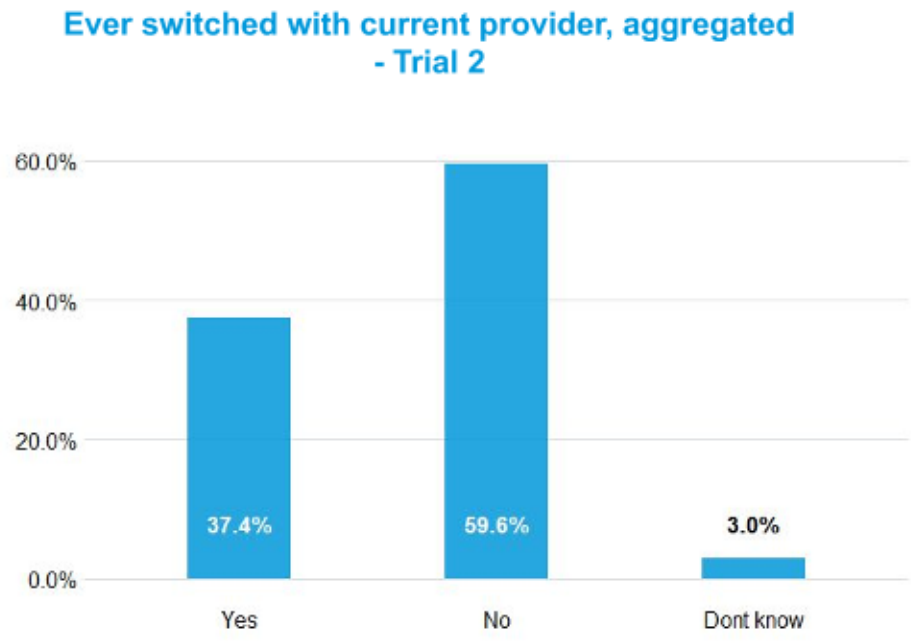


Switched plans or provider (last 12 months), aggregated



Internal switching, 2018 trials

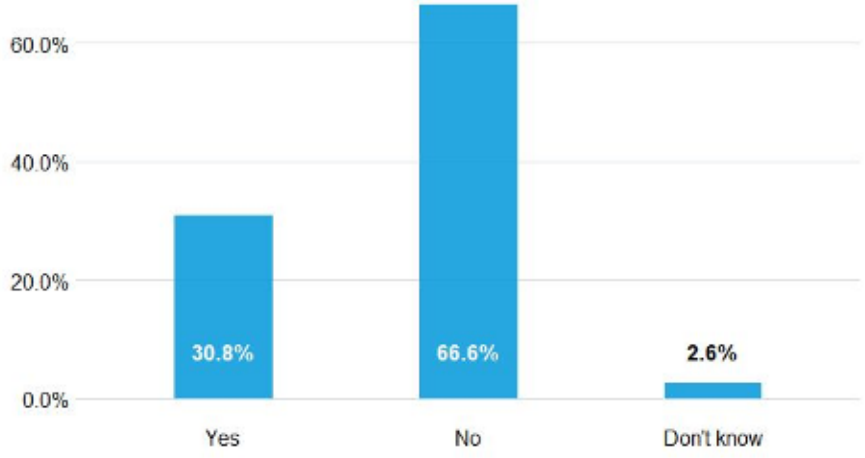




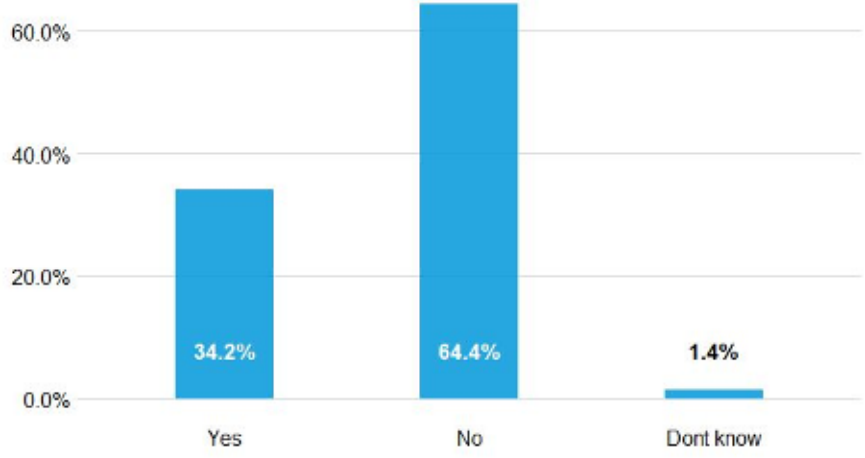
Full report available https://www.esc.vic.gov.au/sites/default/files/documents/BIT%20Report.pdf

Last 12 months switching, 2018 trials

Switched plans or provider (last 12 months), aggregated - Trial 1



Switched plans or provider (last 12 months), aggregated - Trial 2



Full report available https://www.esc.vic.gov.au/sites/default/files/documents/BIT%20Report.pdf

The vast majority of consumers claim to pay on time

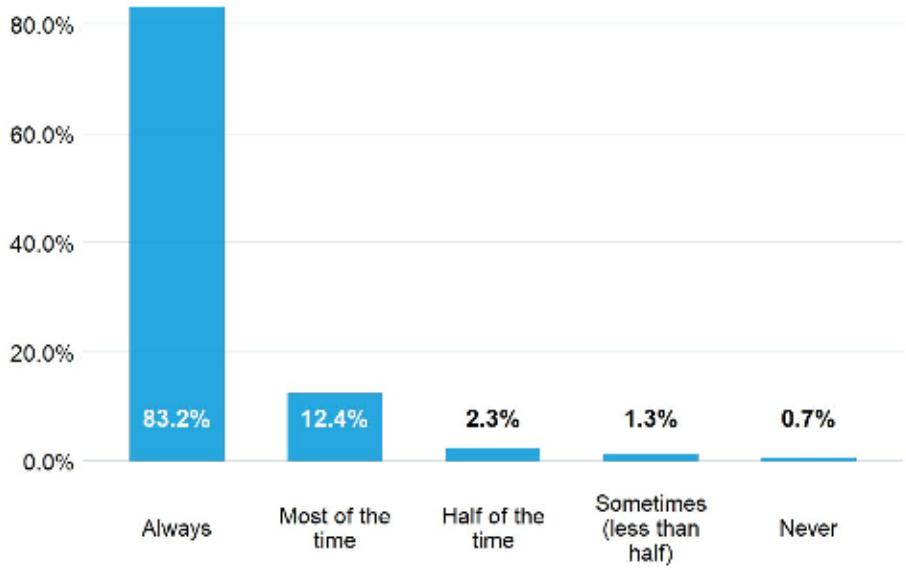
83.2% of respondents (or around 5 in 6) claimed to always pay on time. A further 12.4% claimed to pay on time 'most of the time.' In total this means that over 95% of respondents claimed that they were paying on time most or all of the time.

This may explain why many consumers focus on pay-on-time discounts - if most are paying on time (or more importantly, *believe* they are paying on time), then it makes sense to focus on plans with high conditional discounts. It also suggests that our instructions to respondents (i.e., to choose the plan with the lowest cost in the first year - including pay-on-time discounts) reflect wider behaviour.

It will be important to compare this data to actual rates of on-time payment, and actual rates at which consumers receive discounts.

Reference question: P4

How often consumers claim to pay on time, aggregated



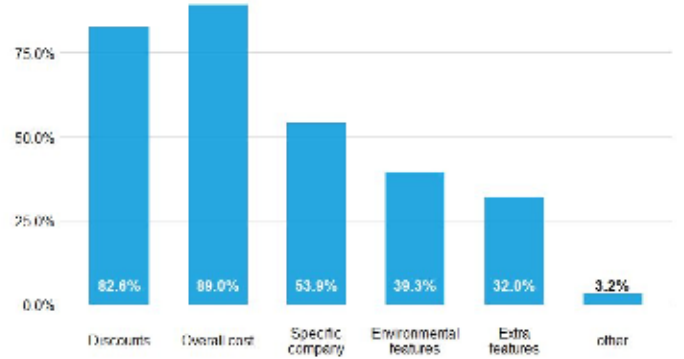
Consumers most commonly focus on overall price and discounts

We asked respondents to rank from 1 to 3 the features that most influence them when choosing an energy provider, from a list of options. The most common results were discounts and overall cost - over 80% of respondents stated that these were important factors. These were also the items with the best average ranking (i.e., closest to 1).

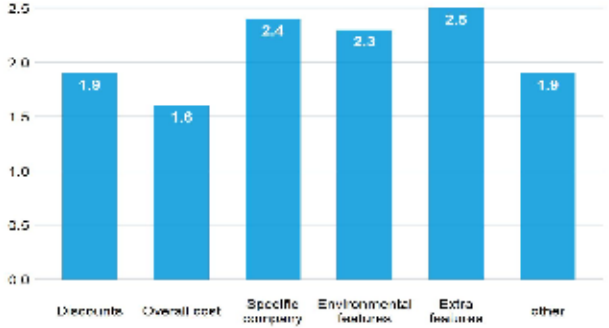
Notably, just over half of respondents also said they focused on the specific company offering the plan, though this rated lower than costs and discounts.

Reference question: P5

How often each item was selected by respondents



Average ranking from respondents



Consumers are unsure about price changes when signing a new contract

We asked respondents what they thought would happen to prices when they signed a new contract.

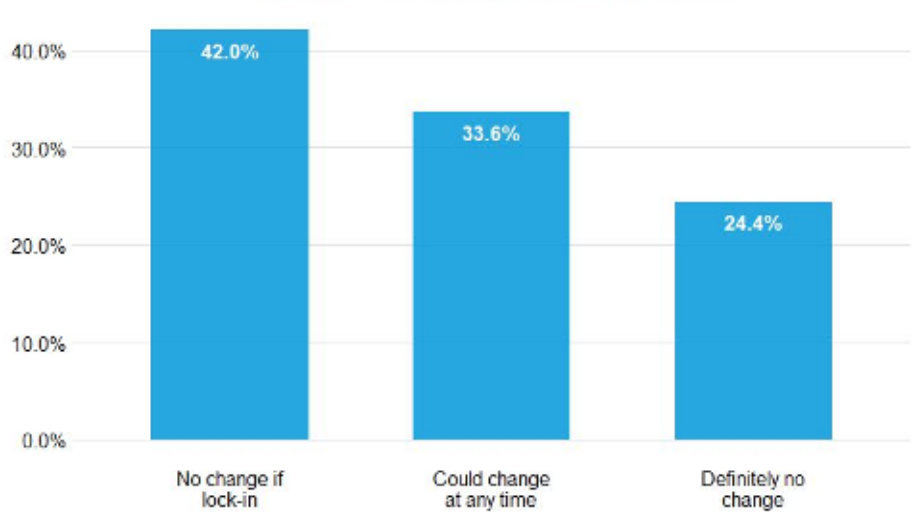
There was an interesting diversity in responses - the most common response saw 42% correctly identify that prices wouldn't change if it was a 'lock-in' contract, but otherwise prices could change.

Approximately a third of respondents (33.6%) thought prices could change at any time - though this is not strictly correct, it is still largely accurate for most contracts.

However, around a quarter (24.4%) believed there would be no change for at least the first 12 months, perhaps reflecting a misguided belief that a contract would fix prices (as in most other markets).

Reference question: P6

What consumers think happens to prices when they sign a new contract, aggregated



Most consumers would do research before accepting a cheaper deal - even from their existing retailer

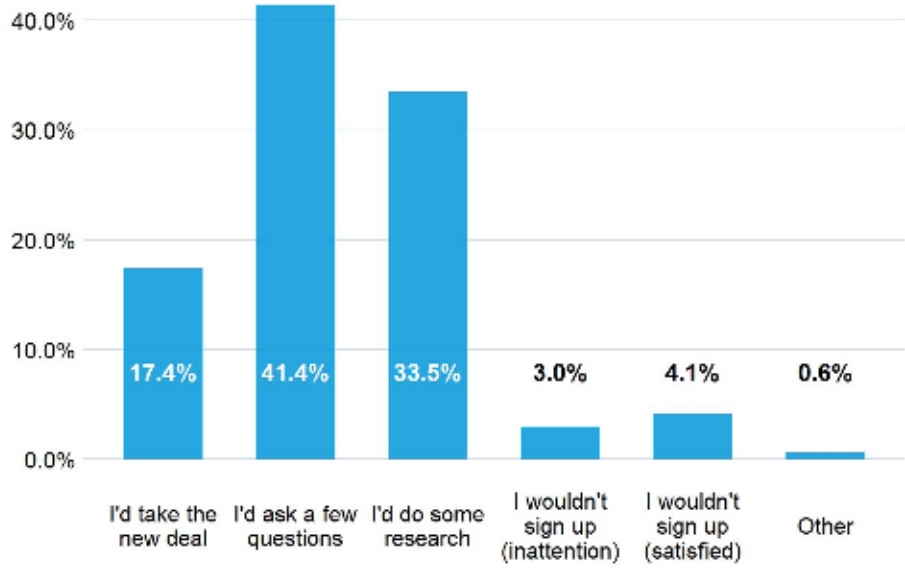
We asked respondents to consider a scenario where their current energy retailer called them up and offered them a cheaper deal.

We offered a range of options in response, with the majority suggesting that they would look to do some additional investigation before taking up the new deal - either asking some questions of the retailer directly (41.4%) or doing their own research (33.5%).

A small proportion (17.4%) suggested they would take the new deal straight away, and very few indicated they would reject the deal entirely due to either inattention (3%) or satisfaction with their current deal (4.1%).

Reference question: P7

Consumer responses to a cheaper deal from their current energy company, aggregated

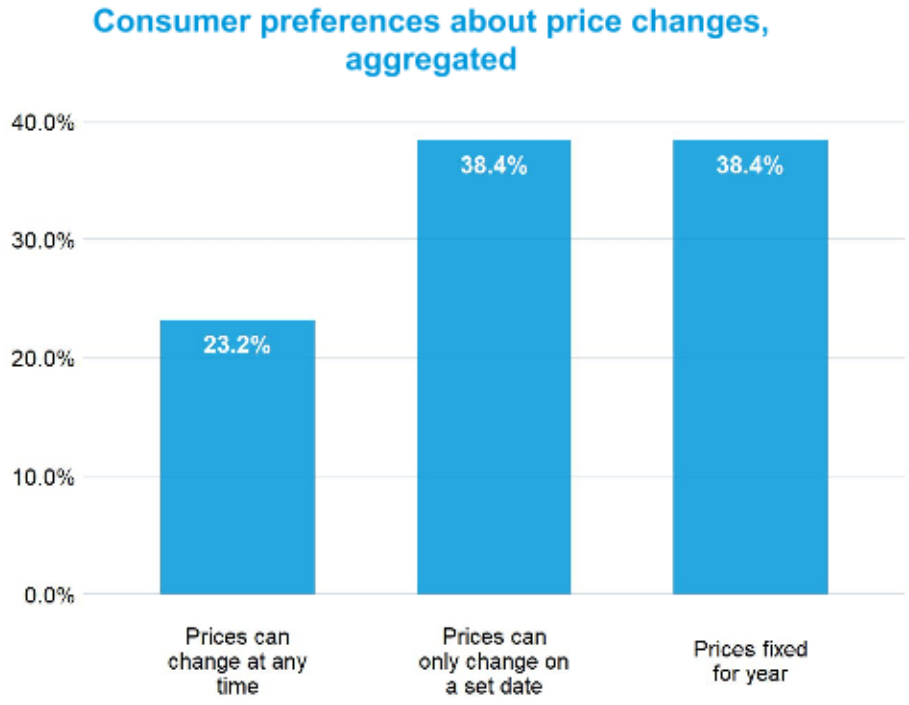


Most consumers prefer prices to be stable

We asked respondents about their preferences about price changes in energy markets - whether they preferred changes at any time, prices to be fixed for a year, or for prices to only change on a set date every year. We found a mix of opinions, with each option seeing between 20-40% of respondents selecting it.

However, if we combine the second and third option, it appears that consumers have a strong preference for seeing some level of stability in terms of prices - over three quarters of respondents selected one of these two options.

Reference question: P8



List of appendices

Appendix 1 - Full question list

Appendix 2 - Technical Appendix

Appendix 3 - All scenarios and plans