

Testing comprehension of the reference price

Final report from the Behavioural Insights Team



Executive Summary

- **Background:** Following the release of the *Competition and Consumer (Industry Code-Electricity Retail) Regulations 2019* (the Code), the Australian Energy Regulator (AER) and the Australian Competition and Consumer Commission (ACCC) commissioned BIT to conduct an online trial. The objective was to determine the most effective way to communicate concepts in the Code to consumers on energy advertisements, so that this information could be utilised through mechanisms such as the *Retail Pricing Information Guideline* and the *Guideline to the Electricity Retail Code*. The trial focused on three concepts, namely the reference price, the unconditional percentage, and the lowest possible price (pp. 4-8).
- **Project aim: To understand the best way to present the three concepts on energy ads, so as to maximise consumer understanding.**
- **Interviews:** First, we conducted several rounds of qualitative interviews to gauge consumer understanding of the concepts, and explore alternative ways to explain the concepts to increase comprehension. Findings from the interviews informed design of the online trial (pp. 9-20).
- **Online trial:** During the trial, participants were randomised into one of four treatment arms. Each treatment used different wording for the three concepts. During the main task each respondent saw two mock energy ads, side by side. They were asked a series of comprehension questions about these ads, relating specifically to the three concepts. We used the resulting comprehension scores to compare how easily the different wordings were understood (pp. 21-27).
- **Results:** We found that all three alternative framings tested increased consumer comprehension of the three concepts relative to the control (which used the wording from the Code). Descriptive language (for example, ‘the benchmark price set by the government’, rather than ‘the reference price’) was most effective in increasing consumer comprehension (pp. 28-48).
- **Recommendations:** As such BIT recommends the **use of simple descriptive terms in energy advertisements**. Given limited space on ads and consumer attention, we also recommend limiting efforts to improve comprehension to the most important concepts. Of these, we believe that clearly telling consumers who sets the reference price (the government) is the lowest hanging fruit (pp. 49-52).



Overview

1. Background
2. Interviews and insights
3. Trial design
4. Trial results - overall findings
5. Trial results - concept specific findings
6. Trial results - other insights
7. Recommendations



1. Background

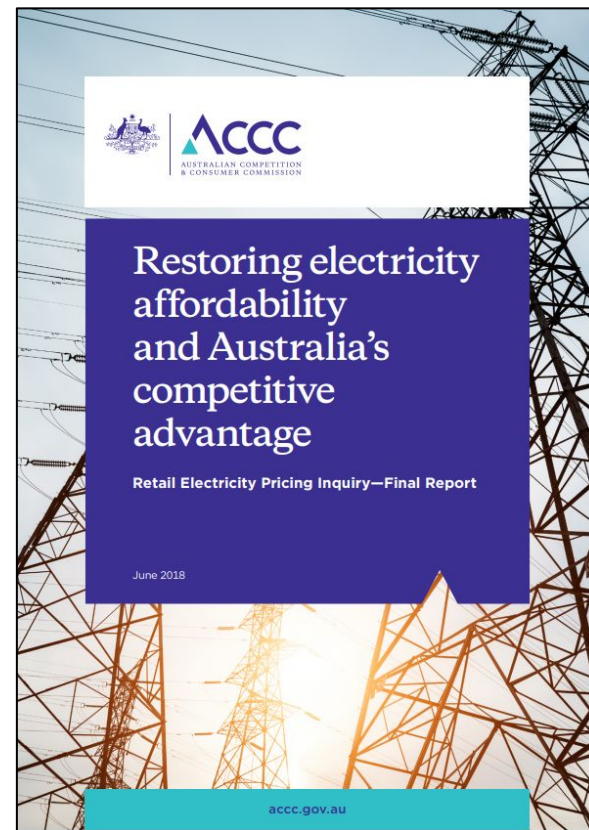


The government is working to make energy ads easier to understand



It can be difficult for energy consumers to engage with the retail energy market. This has been due to increasing prices, complexity in consumer information, barriers to comparing offers and low levels of trust and confidence. In particular the ACCC's 2018 **Retail Electricity Pricing Inquiry** (REPI), found that the marketing of retail offers was focused on headline discounts, but these discounts were not calculated off the same base price and were often conditional. This meant that consumers could not accurately compare offers.

Following the REPI, the Australian Government made the **Competition and Consumer (Industry Code-Electricity Retail) Regulations 2019** (the Code). The Code applies to electricity offers in NSW, SA and South East QLD. The Code requires retailers to advertise energy offers in specific and standardised ways to ensure that they can be more easily understood, and that offers can be compared by consumers.



ACCC Retail Electricity Pricing Inquiry-
Final Report, June 2018



'The Code' introduced three key concepts to help consumers better understand energy offers

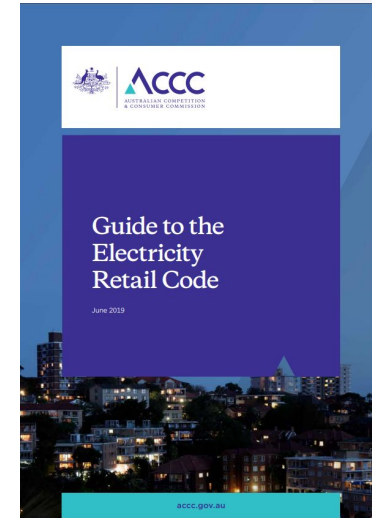
The Code includes several key concepts that underpin the way in which energy offers are to be explained in advertising. These are:

- A. The “reference price” (in this trial, **concept A**)
- B. The “unconditional percentage”: the difference between the unconditional price and the reference price (**concept B**), and
- C. The “lowest possible price” (**concept C**).

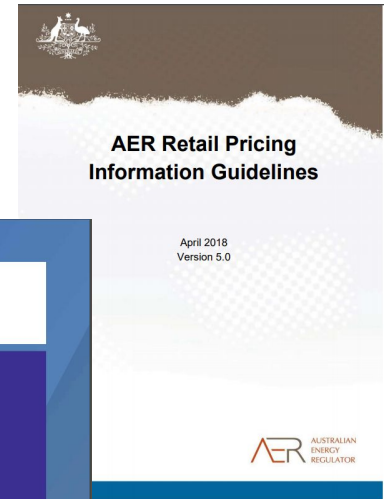
The Code does not require specific use of terms to refer to or describe the concepts.

This research is being undertaken to determine the most effective way to communicate these concepts to consumers on energy advertisements.

Findings will be utilised through mechanisms such as the ACCC's *Guide to the Electricity Retail Code* and AER's *Retail Pricing Information Guideline*.



ACCC's *Guide to the Electricity Retail Code*



AER Retail Pricing Information Guidelines, April 2018, Version 5.0

Our research focused on these three concepts in the Code, and how they can be made more accessible to consumers



Three Key Concepts

B

The unconditional percentage (concept B). The Code requires that retailers calculate the total dollar amount a representative customer would be charged in the financial year at the retailer's offered prices. Retailers must then display the percentage difference between this dollar amount and the relevant reference price. Note this can only include unconditional plan features.

Mock ad with key features

Energy Us

11% less than reference price

This offer is based on a customer who consumes 3900 kWh a year on a flat rate tariff in the Ausgrid network. The lowest annual price is \$1301. Your bill will differ based on your actual usage.

A

The reference price (concept A) refers to a specific price determined by the AER for each region. The aim of the reference price is to make it easier for consumers to compare offers.

C

The lowest possible price (concept C) refers to the price a representative customer with model annual usage would pay in a year, assuming all conditions for discounts were met.



This project aimed to understand the best way to present these concepts, so as to maximise consumer understanding. In particular, the challenge was to find language that succinctly and accurately captured the depth and complexity behind each of the concepts, described in this example ad.



Energy ads are difficult to understand, but behavioural science can help

Energy markets work when consumers are able to pick the best product out of the market, but the evidence suggests that this is often not the case. This can be caused by inattention, complexity of information and low levels of trust and confidence. As such, seemingly small changes in the presentation of information on energy ads can shift consumer behaviour¹ and affect consumer confidence.² In order to improve consumer decision making, energy ads can draw on lessons from behavioural science, and we have incorporated these into the design of our research and trial. Important lessons include:

- Studies have found that in some cases providing more information can confuse rather than aid comprehension,³ and that consumers respond differently to identical discounts depending on how they are presented.⁴
- Consumer decision making can also be improved by simplifying information provision, with one study finding that consumers were more likely to select the best value offer when estimated annual bills were provided.⁵
- Research has found that consumers distrust energy companies.⁶
- Previous BIT studies conducted for the AER have found that consumers are more responsive to potential losses than equivalent gains.⁷
- There can be a mismatch between confidence and comprehension,⁸ suggesting that consumers may overestimate their ability to make a good decision.

1 Costa, E., King, K., Dutta, R., & Algate, F. (2016). Applying behavioural insights to regulated markets. The Behavioural Insights team for Citizens Advice, 26.

2 Behavioural Economics Team of the Australian Government. (2018). Saying more with less: Simplifying energy fact sheets.

3 The Behavioural Insights Team. (2018). Testing the impact of behaviourally informed energy bills and best offers (2018).


4 Lunn, P., & Bohacek, M. (2016). Price transparency in residential electricity: Experiments for regulatory policy (No. 543). ESRI Working Paper.

5 Ibid.

6 Stenner, K., Frederiks, E. R., Hobman, E. V., & Cook, S. (2017). Willingness to participate in direct load control: The role of consumer distrust. *Applied energy*, 189, 76-88.

7 The Behavioural Insights Team. (2018). Review of the Benefit Change Notice for the AER.

8 The Behavioural Insights Team. (2018). BIT review of Basic Plan Information Document (BPID) for the AER.

A person is shown in profile, working on a laptop. The laptop screen displays a code editor with various lines of code. The entire image has a blue color cast. On the right side, there is a decorative geometric pattern of overlapping cubes or hexagons. The text '2. Interviews and insights' is overlaid in white, with a white underline under the number '2'.

2. Interviews and insights



We interviewed consumers to gauge understanding of the concepts and explore alternative ways to communicate them

Interview methodology: overview

Number of Participants	Gender	Age	CALD status
15 People	8 Male 7 Female	M = 46 (29-69)	4

Breakdown of interview participants

How and why we did interviews

- We conducted several rounds of qualitative interviews to explore consumer comprehension and alternative ways of presenting the concepts on energy ads.
- We spoke to 15 main or joint energy decision makers.
- During interviews we showed participants mock energy ads containing the three concepts and asked them questions (these ads were not intended to resemble actual ads).
- To ensure that our interview sample was representative of the general population we recruited participants who were both male and female between the ages of 25 and 70, from English speaking and CALD backgrounds.

What we found

- Participants struggled to come up with alternative framing for the key concepts as levels of comprehension were low. In particular, participants did not understand what the concepts were or what they should be used for.
- Contextual factors such as consumer mistrust of energy companies, and the 'training' of consumers by energy retailers to focus on discounts, may have contributed to participants struggling to understand ads which formulate energy offers in a new way.



Overall, consumer comprehension of the example ads was low

Participants did not understand the example ads: Participants' comprehension of the ads was low. On first viewing, most participants did not understand the offer each ad was presenting as a whole, or what each individual concept meant. After the concepts were explained to participants, they still struggled to explain them in their own words. This likely reflects the highly technical nature of these concepts.

The mix of dollar figures and percentages on the ads confused participants: The mix of dollar amounts and percentages on the ads confused many participants. When first viewing the ads participants jumped around the page looking at different concepts rather than reading them from top to bottom. Several participants focused on the dollar figures presented as the lowest possible price, and worked backwards from this to try and work out what they might pay, often incorrectly.

Despite low comprehension, participants could still pick the cheapest offer: Even though participants didn't understand the offers presented in the example ads, when viewing two or more ads side by side they could generally use the ads to select the cheapest offer.

Overall I don't understand it

- Female in her 20's

If you could explain what the conditions are it would be easier to understand - Female in her 30's

BOLT ENERGY

5% less than the reference price

Plus a further **4%** if you always pay on time

The lowest annual price when you always pay on time is **\$1254**

For an average household using 3900 kWh / yearly on a flat rate tariff in the Ausgrid network.

Mock ad shown in interviews

Concept A. 'Reference Price'



Consumers were particularly confused about the 'reference price'...

We don't know what the reference price is? I just know this offer is 8% off. - Female in her 50's

First of all I don't know what a reference price is. - Female in her 20's

And we have to be smart enough to work out this concept? - Female in her 50's

What is reference price, I'm asking myself. I don't know. - Male in his 60's.

Reference price is the free market, every company charges the price they want. - Male in his 60's

- Understanding of the reference price is fundamental for comprehension of the whole ad and the other two concepts.
- But the majority of participants stated upfront that they had little idea of what it was or what it should be used for. One participant thought that it might be the price he received if he was to refer a friend to that energy company.
- Participants were also unclear if the reference price was:
 - Set by the government or the energy company
 - Based on individual consumption or an average, and
 - The same across all regions.
- **There was no clear preference for the alternative terms for the reference price presented during interviews.**

Concept A. 'Reference Price'

...but intuitively knew how to use the concept



Mock ads shown in interviews

BOLT ENERGY

5% less than the reference price

Plus a further 4% if you always pay on time

The lowest annual price when you always pay on time is \$1254

For an average household using 3900 kWh / yearly on a flat rate tariff in the Ausgrid network.

OK Energy

2% off the reference price

A further 8% off the reference price if you always pay on time

The lowest annual price when you always pay on time is \$1230

This offer is based on an average household using 3900 kWh / yearly on a flat rate tariff in the Ausgrid network. Your bill will differ based on your actual usage.

- Participants understood the reference price better when they saw it 'in the wild', i.e., when shown two or more ads at the same time.
- Despite low levels of comprehension of the concept, when prompted, participants could often look across multiple example ads and make an educated guess that it was a standardised price, consistent across the ads.



Concept B. 'Unconditional percentage'

Participants only had a basic understanding of the unconditional percentage

- Once participants understood the reference price they then mostly understood the unconditional percentage as being the company's offer compared to the reference price.
- However, many participants were unclear about how the unconditional percentage is calculated, and did not understand that it was based on an average user profile. Most people thought it was a fixed offer, with one participant stating that **'everyone is going to get that'**.
- However this did not stop participants being able to use the unconditional percentage to compare ads and pick the cheapest offer.
- **Overall, participants said they thought that the framing 'x% off' was easy to understand. Some participants also liked 'our price is x% off' as an alternative way of communicating the concept.**

BOLT ENERGY

5% less than the reference price

Plus a further % if you always pay on time

The lowest annual price when you always pay on time is \$1254

For an average household using 3900 kWh / yearly on a flat rate tariff in the Ausgrid network.

OK Energy

2% off the reference price

Further 8% off the reference price if you always pay on time

The lowest annual price when you always pay on time is \$1230

This offer is based on an average household using 3900 kWh / yearly on a flat rate tariff in the Ausgrid network. Your bill will differ based on your actual usage.



Concept B. 'Unconditional percentage' continued ...

Consumers didn't think that it was an impressive offer

- Several consumers stated that they were unimpressed with the offer in the ads (expressed as the unconditional percentage).
- This suggests that consumers might be confusing the unconditional percentage with the types of discounts previously offered by energy companies, which they are used to seeing and engaging with.

What's 6%? Whoop-de do. - Female in her 30's

The offers aren't enough, some people are offering up to 30% off.
- Female in her 50's

2% sounds low. - Female in her 20's

Why only 8%, why can't they do more? - Female in her 50's

Concept C. 'Lowest Possible Price'



Participants only had a basic understanding of the lowest possible price

- Most participants understood that the lowest possible price was a monetary representation of the energy offer in the ads.
- However, many participants did not read the fine print on the ads, and therefore did not realise at first instance that the lowest possible price was based on a particular user profile.
- Use of the term 'the lowest' also meant that the majority of participants were surprised to hear that it could be *lower or higher* than the amount listed on the ads.
- Participants were also unclear about how the lowest possible price is calculated. Some confusion existed about whether it included usage and/or connection fees.
- **Participants suggested alternative framings including 'average annual price', or 'estimated annual price' during interviews.**

Lowest annual price, that means you could pay more?

- Female in her 60's

How are people going to know that? - Female in her 20's

It won't get any cheaper than that - Male in their 50's

It's the charge to your house if there is no usage - Male in their 20's



People trust the government more than energy companies

Self-reported confidence in energy companies was low among participants

There was a general sense that energy companies were trying to ‘trick’ consumers into signing up for bad deals. One participant said that she was suspicious about discount offers as a rule as ***‘they’re all ripping you off’***. Referring to energy companies, another participant said ***‘we’re being ripped off and they can offer anything’***.

Participants reported higher levels of confidence in the government and the regulator

Across the interviews, almost all participants expressed a preference for including ‘government’ or ‘Australian Energy Regulator’ on the ads to make it clear that the reference price is not set by the energy company. These entities would give the ads credibility as consumers trust these bodies to look out for their best interests.

‘Australian Energy Regulator’ generally lead to higher perceptions of trust than simply stating ‘government’. One participant noted ***‘Australian energy regulator is better than government, they are the people looking out for consumers’***.



General Insights

Participants' primary interest was how the ads related to them personally

- A key consideration for participants was how the ads related to them and their usage.
- Most participants reported being more interested in trying to work out what they would pay as individual consumers, rather than understanding the intricacies of the three concepts.
- In relation to concept B, one participant stated ***'I don't care how they get to that price, I just want to know if I will get the discounts, I don't care what happens behind the scenes'***.





Changing the formatting of energy ads may increase comprehension of the three concepts

BIT took the findings from the interviews and developed alternative example ads which were shown to participants at the end of interviews.

Most participants responded positively to these ads. Reasons for this included:

- The large bold font drew consumer attention to percentages off the reference price.
- The infographics assisted in explaining key concepts, such as what constitutes an average user/household.
- The additional explanatory information aided understanding on first reading.
- The information was clearly presented, and the ads had a clear line of sight for the viewer.

However we cannot gauge whether these revised ads improved understanding of the three concepts, or the overall offer, as these ads were shown at the end of each interview, once participants had already had the concepts explained to them.

five point energy

Basic price
12% off the reference price
set by the Australian Energy Regulator

plus an extra
1% off (13% total)

if you sign up online

So an average customer using **3900kWh** pays \$1,200 per year, or \$1,186 if they sign up online

Example of an alternative mock ad, created using interview feedback.

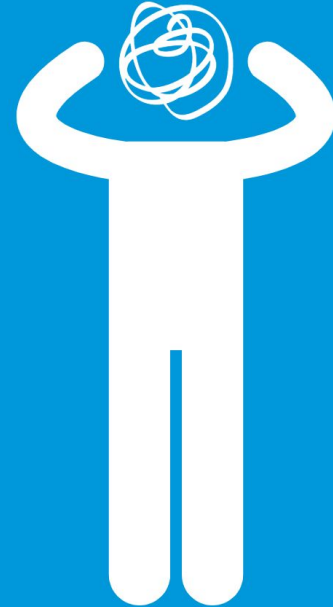
We then used the interviews to inform the online trial

Clear preferences for alternative wording of the three concepts did not arise from the interviews.

However the interviews clearly showed that participants did not understand both what each concept was, and how it should be used in the context of the ads.

We therefore designed an online trial which sought to test whether filling these knowledge gaps for consumers increased their understanding.

Using interview data we worked out the different things that participants most commonly misunderstood about the three concepts, and developed survey questions which targeted these gaps in understanding.

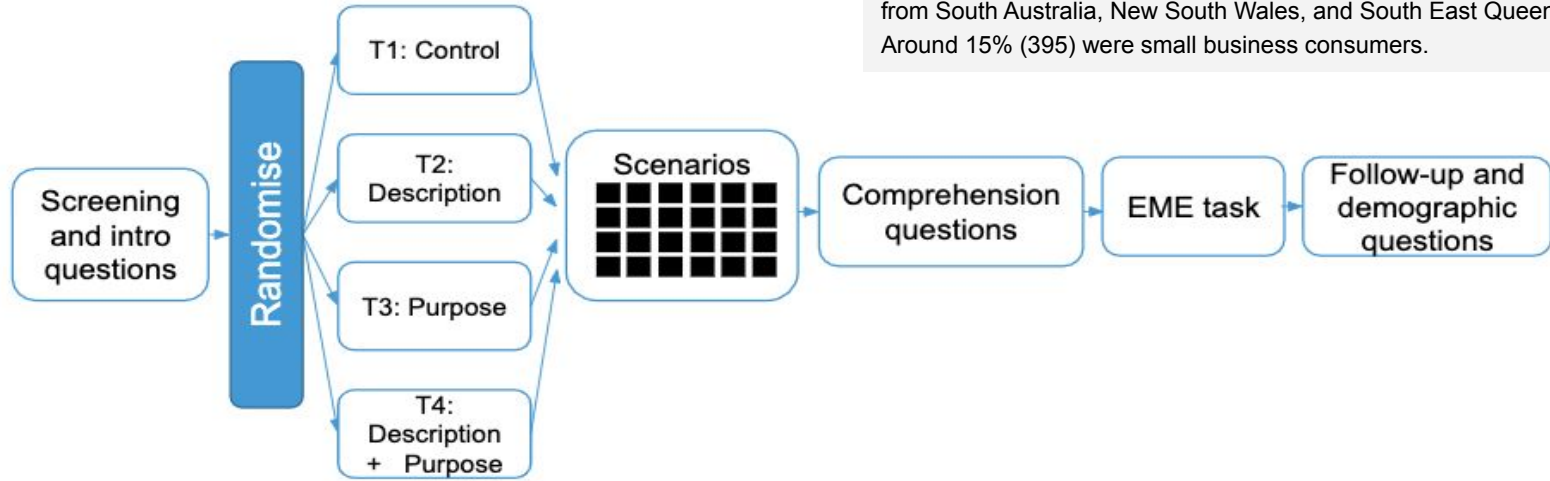


3. Trial design

We tested alternate ways of explaining the concepts through a randomized control trial



Visual Summary of the Trial Methodology



The participants: This trial involved 2,504 respondents who were either the main or the joint energy decision-maker. Respondents were drawn from South Australia, New South Wales, and South East Queensland. Around 15% (395) were small business consumers.

After answering some basic demographics, respondents were randomised into one of four treatment arms.

Each treatment used different wording for the three concepts. During the main task each respondent saw two mock energy ads, side by side (these were not intended to resemble actual retail ads).

They were then asked a series of comprehension questions about these ads (while the ads were displayed), relating specifically to the three concepts.

Respondents were then shown a mock screenshot from the Energy Made Easy website and asked a series of questions in relation to that single screenshot.

Finally, respondents answered some basic financial literacy questions and filled out some questions about their demographics.



We tested primary and secondary outcome measures, as well as practical comprehension

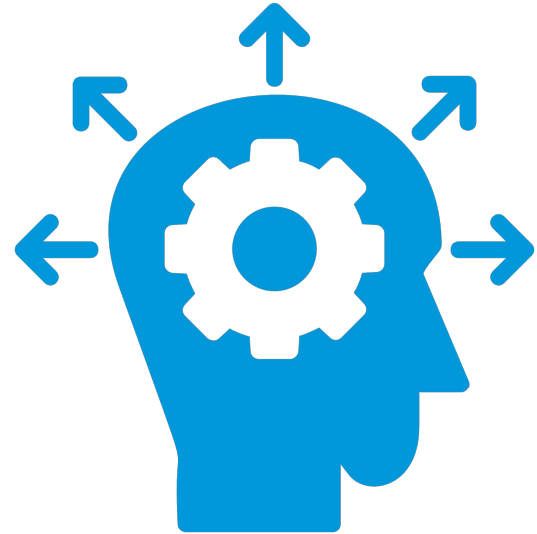
Primary outcome: Consumer comprehension, determined by looking at the average of all comprehension questions for the three concepts.

Total comprehension = comprehension of concept A +
comprehension of concept B + comprehension of concept C

Secondary outcomes: Comprehension of each of the three concepts:

- Does the way the reference price (concept A) is presented affect consumer comprehension of this concept?
- Does the way the unconditional percentage (concept B) is presented affect consumer comprehension of this concept?
- Does the way the lowest possible price (concept C) is presented affect consumer comprehension of this concept?

Practical comprehension: In addition to these pure measures of comprehension, we also tested whether comprehension would be increased in a practical task - asking consumers to select the cheapest energy plan via the government's Energy Made Easy website.





We compared 'The Code' wording against three alternatives

Each participant was randomised to see one of four treatments. The treatments varied the way that each concept was described. The precise language used is captured in the table below.

Treatment arm	Concept A (reference price)	Concept B (difference between the unconditional price and the reference price)	Concept C (lowest possible price)
Control	Reference Price	X% less	Lowest possible price
T1: Description	Benchmark Price set by the government	Our price is X% less	Estimated annual bill
T2: Purpose	Comparison Price	Our offer is X% less	Bill for the average user
T3: Description + Purpose	Benchmark Price set by the government (to help you compare offers)	Our price for this offer is X% less	Estimated annual bill for the average user



The questions for concept A (the reference price)

Participants were asked 4 multiple choice questions about each of the three concepts.

For each question participants could also choose a 'don't know/not sure' option.

The example energy ads refer to a '[Concept A]'. Who do you think sets this?	The government
	The energy company
The example energy ads refer to a '[Concept A]'. What do you think this is for?	It's to help me compare between companies
	It's what I would pay if I signed up
The example energy ads refer to a '[Concept A]'. What do you think this is based on?	It is calculated based on an average user
	It is calculated based on my usage
If you saw a price that was equal to the '[Concept A]', would you think that it was good value?	No, the '[Concept A]' is only for comparison and does not necessarily represent good value
	Yes, the '[Concept A]' represents good value

Correct answer

Incorrect answer



The questions for concept B (the unconditional percentage)

Participants were asked 4 multiple choice questions about each of the three concepts.

For each question participants could also choose a 'don't know/not sure' option.

The example ads say '[Concept B]' the '[Concept A]'. What do you think this means?	It's the difference between the '[Concept A]' and the energy retailer's price
	It's the discount off the company's normal price
The example ads say '[Concept B]'. Do you think that it is decided by the company or the government?	It's decided by the energy company
	It's decided by the government
The example ads say '[Concept B]'. Do you think that everyone gets this if they sign up with the energy company?	No, the percentage off might change depending on my usage
	Yes, everyone gets 8% off (Bolt Energy) or 15% off (OK Energy) if they sign up with this energy company
The example ads say '[Concept B]'. Do you think you have to do anything special to qualify for this?	No, I don't have to do anything extra
	Yes, I have to do something extra like paying on time

Correct answer

Incorrect answer



The questions for concept C (the lowest possible price)

Participants were asked 4 multiple choice questions about each of the three concepts.

For each question participants could also choose a 'don't know/not sure' option.

The example ads talk about the '[Concept C]'. What do you think this is made up of?	The connection fee and usage
	The connection fee only
The example ads talk about the '[Concept C]'. What usage do you think this is calculated for?	An average user
	My usage
The example ads talk about the '[Concept C]'. Do you think you have to do anything special to qualify for this?	Yes for 'Bolt Energy' and no for 'OK Energy'
	Yes, for both ads
	No, for both ads
	Yes for 'OK Energy' and no for 'Bolt Energy'
The example ads talk about the '[Concept C]'. Is this the price you would pay if you signed up?	No, I could pay more or less depending on my usage
	Yes, it's what I would pay

Correct answer

Incorrect answer



4. Trial results - overall findings



How to read the trial results

- **All analyses compare each Treatment to the Control (but we did not compare treatments with one another).**
- Charts show the Control (The Code) estimates in grey, and all treatment estimates in blue.
- The error bars on each chart (marked in grey) are confidence intervals. These show the level of uncertainty in our estimate.
- If we repeated the trial again, the results would be slightly different because we'd have a different sample, but we are 95% confident that our result would be within the grey bars.



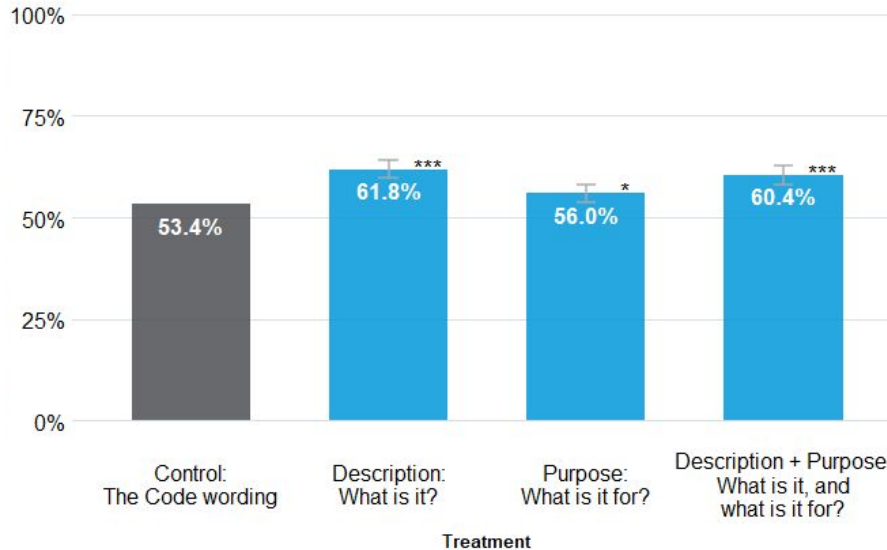


Overall comprehension

Descriptive treatments saw the greatest increase in comprehension overall

Average proportion of correct answers by treatment group

%



+ = $p < 0.1$, * = $p < 0.05$, ** = $p < 0.01$, *** = $p < 0.001$

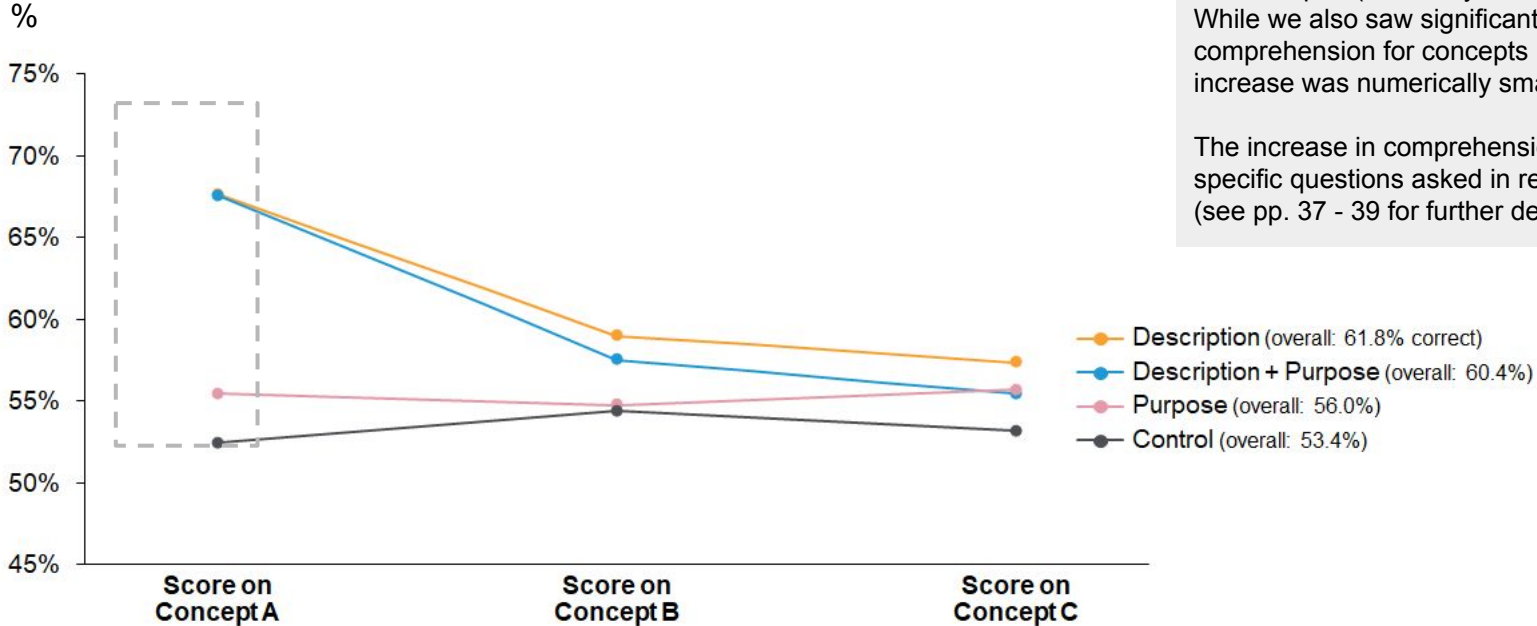
- **All three treatments performed better than the control**, increasing the average proportion of correct answers by between 2.7-8.5 percentage points. All the increases were statistically significant at conventional levels.
- Overall, a descriptive way of presenting information is the most effective for increasing consumer comprehension of the concepts in energy ads. Notably, a simple description (i.e., without additional information about the purpose) seems to be the best option overall by a small margin.
- **Note**, that in all conditions, comprehension remains far from 100%.



Overall comprehension

... but the increase in comprehension varied by concept

Proportion of correct answers by concept and treatment group



We saw a significant increase in comprehension for concept A (shown by the dotted grey box). While we also saw significant increases in comprehension for concepts B and C, the increase was numerically smaller.

The increase in comprehension is driven by specific questions asked in relation to concept A (see pp. 37 - 39 for further details).

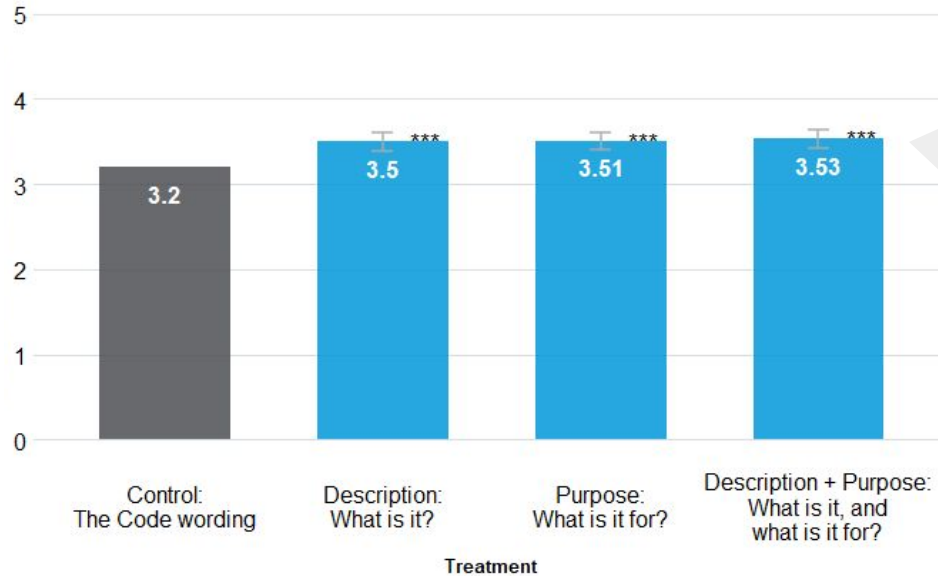


Overall comprehension

All treatments also improved participants self-reported comprehension

Average self-reported comprehension by treatment group

1-5 scale



All treatments yielded a statistically significant increase in self reported comprehension.

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

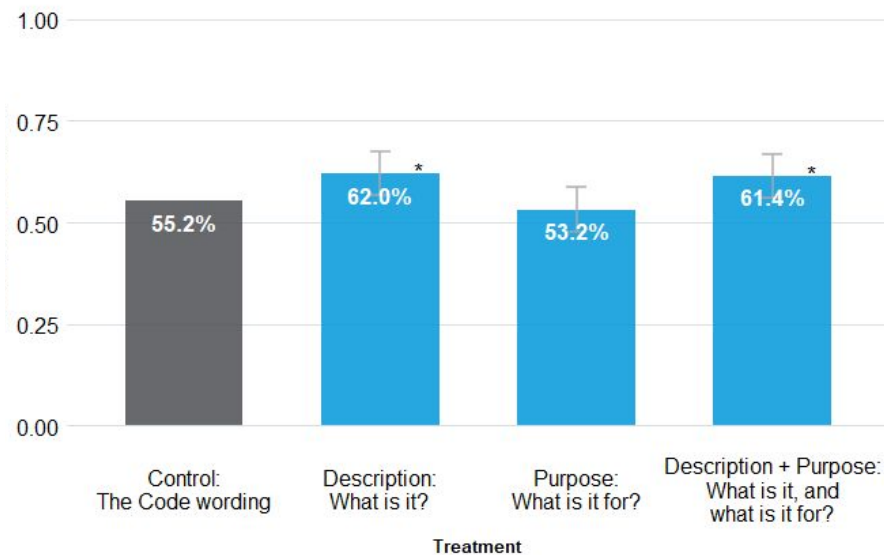
Overall comprehension



Descriptive treatments saw the greatest increase in 'in practice' comprehension on EME

Average selecting the cheapest plan on EME website by treatment group

%



- We also asked participants to view a mock extract of the Energy Made Easy (EME) website, which included a number of energy offers. Information about concept A was displayed using the terminology of the particular treatment that the participants were assigned to. Participants were required to then select the cheapest offer.
- We found that participants in the two descriptive arms (i.e., Description or Description + Purpose) selected the cheapest plan at substantially higher rates (an increase of 6.2-6.8 percentage points). These differences were statistically significant.
- **This suggests that more descriptive language also has a practical impact in making it easier to understand which energy offers will save consumers money.**

+= $p < 0.1$, *= $p < 0.05$, **= $p < 0.01$, ***= $p < 0.001$



Mock EME screenshot

Electricity plan results

Electricity 2780 3 people [New Search](#)

What is important to you?

Monthly bills No contract term No exit fees No credit card fees [Refine by: discounts, fees, payments & more](#) +

Show: **Lowest price plans from each retailer (29)** | All plans (247) View: Price | Price with discounts Yearly

Retailer	Plan Name	Key Features	Price	Comparison
EnergyU	Premium Saver	<ul style="list-style-type: none">No contract termSingle rate tariffSmart meter compatibleSolar feed-inGreen energy	\$1,530 with discounts \$1,560 per year	11% less than the [Concept A]
Spark Energy	Combo Market Offer	<ul style="list-style-type: none">No contract termSingle rate tariffSmart meter compatibleSolar feed-in	\$1,550 with discounts \$1,620 per year	10% less than the [Concept A]
Five Point Energy	Energy Max Saver	<ul style="list-style-type: none">No contract termSingle rate tariffSmart meter compatible	\$1,570 with discounts \$1,570 per year	9% less than the [Concept A]

Mock EME screenshot shown during the online trial

Information about concept A was added to a mock EME screenshot.

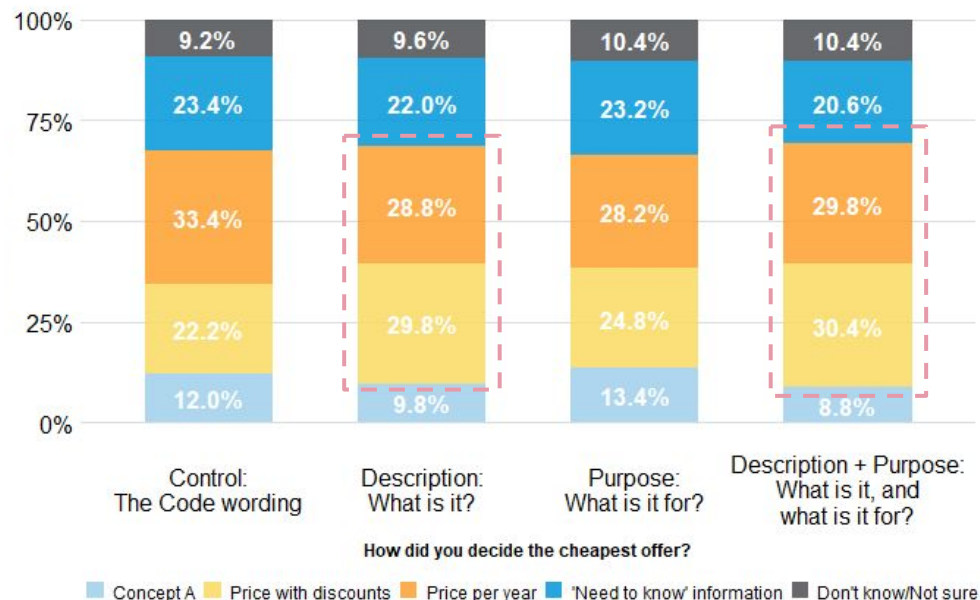
Overall comprehension



However participants were not aware that information about concept A was helping them choose the cheapest plan on EME

Information influencing participants choice on EME, by treatment

% of participants



- We also asked participants *how* they chose the cheapest plan on EME, and well over half said they used the **monetary figures** (highlighted in the chart), rather than any other information (including information about concept A).
- All information, except the way that concept A was framed, was the same between the treatments. Therefore, if participants had actually used the monetary information we would not have seen a difference in ability to pick the cheapest plan across treatments.
- This may suggest that people do not have insight into how they make their decisions.

The background features a blue-tinted image of a spiral-bound notebook. On the left page, there is a flowchart with human icons and arrows, accompanied by handwritten notes such as "order", "HR", "employee", "research", "rating", "train", "team B", "product B", and "price". The right page shows a bar chart with four bars of increasing height, a large upward-pointing arrow, and a diamond-shaped arrow pointing left. A white underline is positioned under the word "findings" in the main title.

5. Trial results - concept specific findings

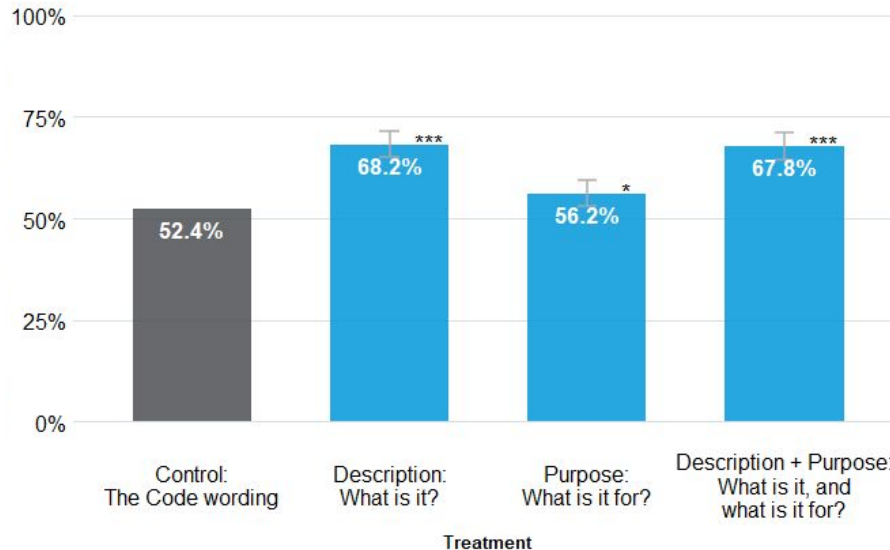
Concept A. 'Reference Price'



Descriptive treatments are particularly effective for explaining the reference price...

Average proportion of correct answers for concept A by treatment group

%



- Much of the overall impact on comprehension appears to be driven by the improvement in comprehension of concept A (the reference price). Whilst all treatments show statistically significant increases in the proportion of correct answers, Description and Description + Purpose show an increase of between 15.4-15.8 percentage points.
- **It is likely that much of this has to do with more clearly explaining what the reference price is, and particularly, who sets the reference price.**

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

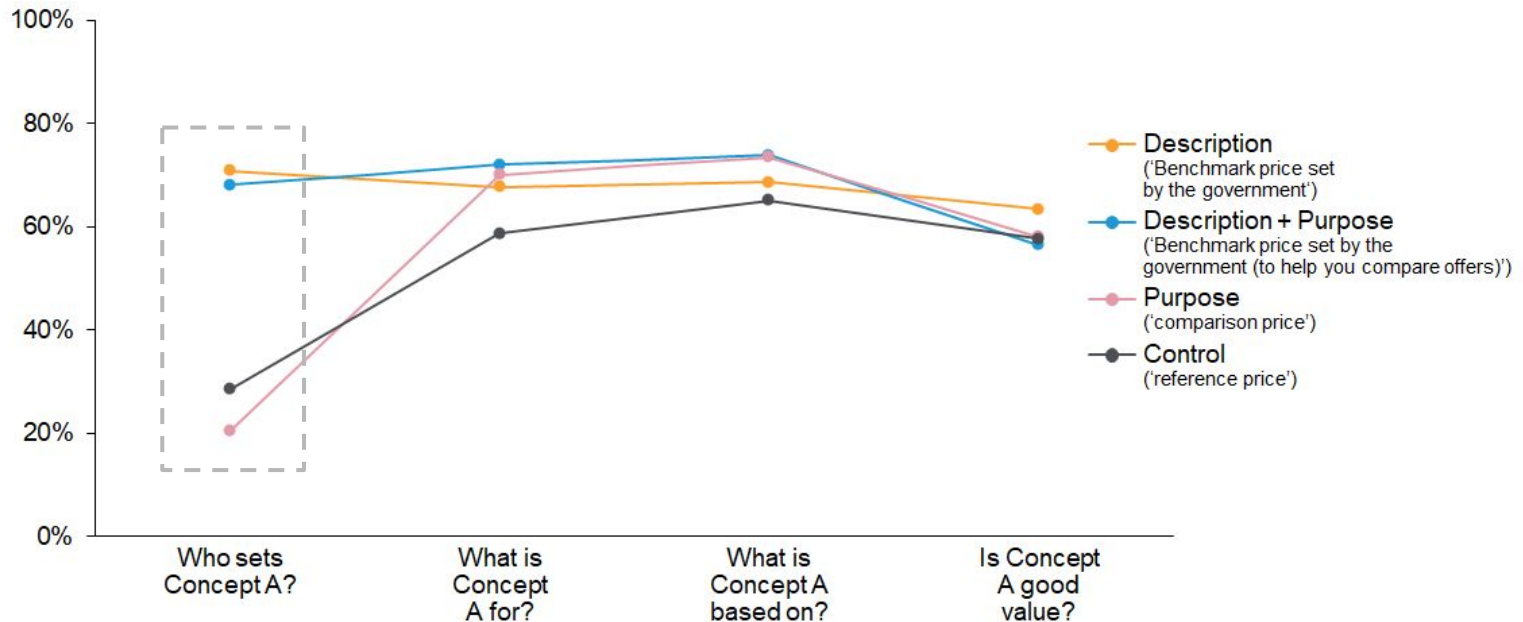
Concept A. 'Reference Price'

...mostly because they make it very clear *who* sets the reference price



Concept A: proportion of correct answers by treatment group

%



Concept A. 'Reference Price'



The biggest increase in comprehension related to *who* sets the reference price

- **Clarifying who sets the reference price drives the the overall success of the descriptive treatments.**
- The biggest gains on concept A are in comprehension of who sets the reference price. In the control group, well under a third of participants (28.4%) realise that the reference price is set by the government. Notably, this is the lowest rate of correct responses for any question by participants in the control. This suggests that there is currently a significant lack of understanding in the community about what exactly the reference price is.
- Describing the reference price as a 'benchmark price set by the government' sees the biggest improvement in comprehension for any question by far. In fact, the increase in comprehension for this one question makes up around two fifths of the total increase in comprehension seen in descriptive treatments.
- **All treatments increase understanding of what the reference price is for** - Purpose treatments see the highest comprehension, but the Description-only arm also sees a substantial increase.

Percentage of correct answers for each question in concept A relative to control, by treatment

Question	Control	Description	Purpose	Description + Purpose
2. Who sets Concept A?	28.4%	+42.4%	-8.0%	+39.6%
3. What is Concept A for?	58.6%	+9.0%	+11.4%	+13.4%
4. What is Concept A based on?	65.0%	+3.6%	+8.4%	+8.8%
5. Is Concept A good value?	57.6%	+5.8%	+0.4%	-1.2%

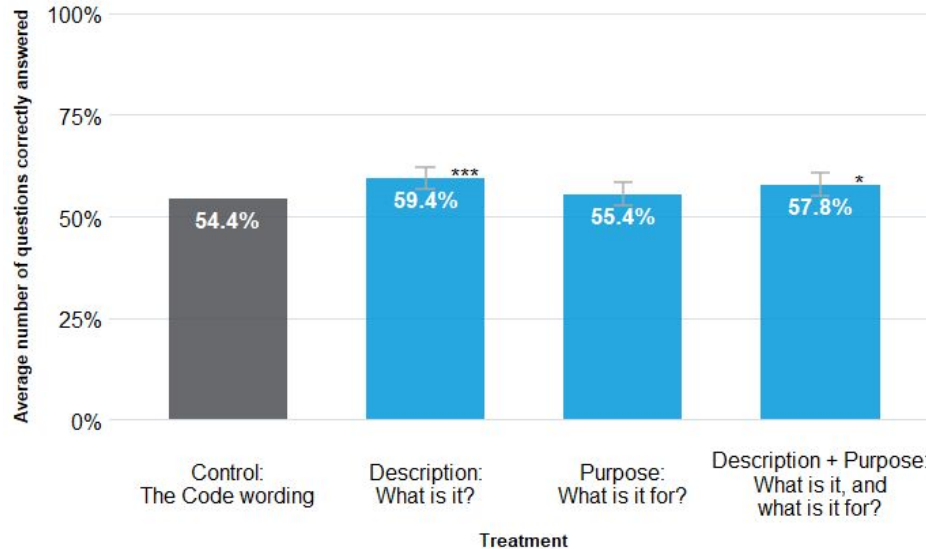
Concept B. 'Unconditional percentage'



Descriptive treatments are also effective for explaining concept B

Average proportion of correct answers for concept B by treatment group

%



- Description and Description + Purpose are also most effective at explaining concept B (the unconditional percentage). Notably, the Purpose treatment does not improve comprehension by a statistically significant margin.
- Both descriptive treatments show statistically significant improvements in comprehension overall, with the Description arm again slightly ahead overall.
- However, the increases in comprehension are smaller than the increases in comprehension seen in concept A.

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

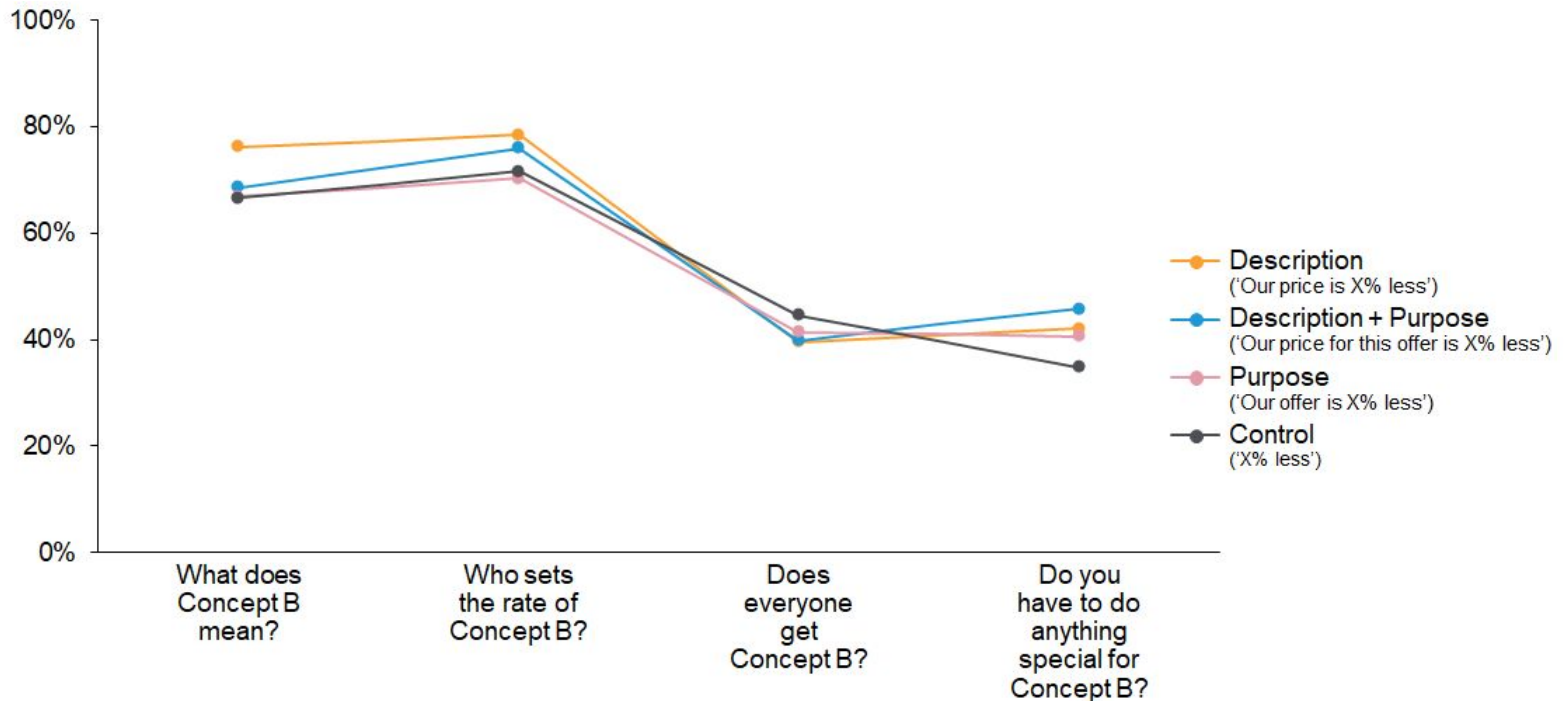
Concept B. 'Unconditional percentage'



...descriptive treatments are also effective for explaining concept B

Concept B: proportion of correct answers by treatment group by question

%



Concept B. 'Unconditional percentage'



Basic understanding of concept B is good, but not all participants understand key nuances

- Most treatments see small improvements on most of the sub-questions related to the unconditional percentage. There appears to be a slight decrease for the question that asks whether everyone gets the price, though this is unlikely to be significant.
- More advanced understanding of exactly how the unconditional percentage is calculated is quite limited. The basic ideas (reflected in questions 7 and 8) are well understood (see blue box). On the other hand, questions 9 and 10 reflect more complex features that have poorer comprehension (see orange box).
- Many consumers have likely been 'trained' by retailers to have certain expectations around discounts (i.e., that they are conditional discounts on usage for paying on time). It is therefore likely that many consumers expect that these ads reflect this practice. This may explain why participants expected that they would need to take some action to receive the unconditional percentage.
- It is promising that in most instances, the treatments (particularly the descriptive treatments) appear to generally increase comprehension, albeit by a relatively small amount (see, for example, black box).

Percentage of correct answers for each question in concept B relative to control, by treatment

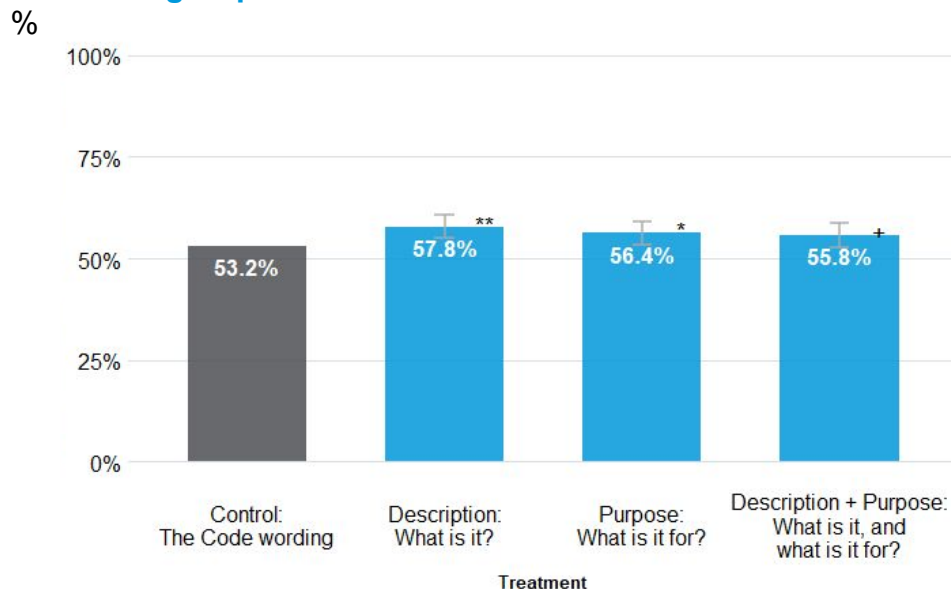
Question	Control	Description	Purpose	Description + Purpose
7. What does Concept B mean?	66.6%	+9.6%	+0.2%	+2.0%
8. Who sets the rate of Concept B?	71.6%	+6.8%	-1.4%	+4.4%
9. Does everyone get Concept B?	44.6%	-5.0%	-3.2%	-4.8%
10. Do you have to do anything special for Concept B?	34.8%	+7.2%	+5.8%	+11.0%

Concept C. 'Lowest possible price'



The Description treatment is most effective for explaining the lowest possible price

Average proportion of correct answers for concept C by treatment group



- The Description treatment is the most effective at increasing comprehension of the lowest possible price overall, but the impact is smaller than for concept A.
- The Purpose treatment appears to be the next most effective treatment. Description + Purpose has the lowest increase, and is only weakly significant.
- As a result, the Description arm is the only treatment arm that is the best performing arm in each concept (and overall), and the only arm with strongly significant results for each concept.

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

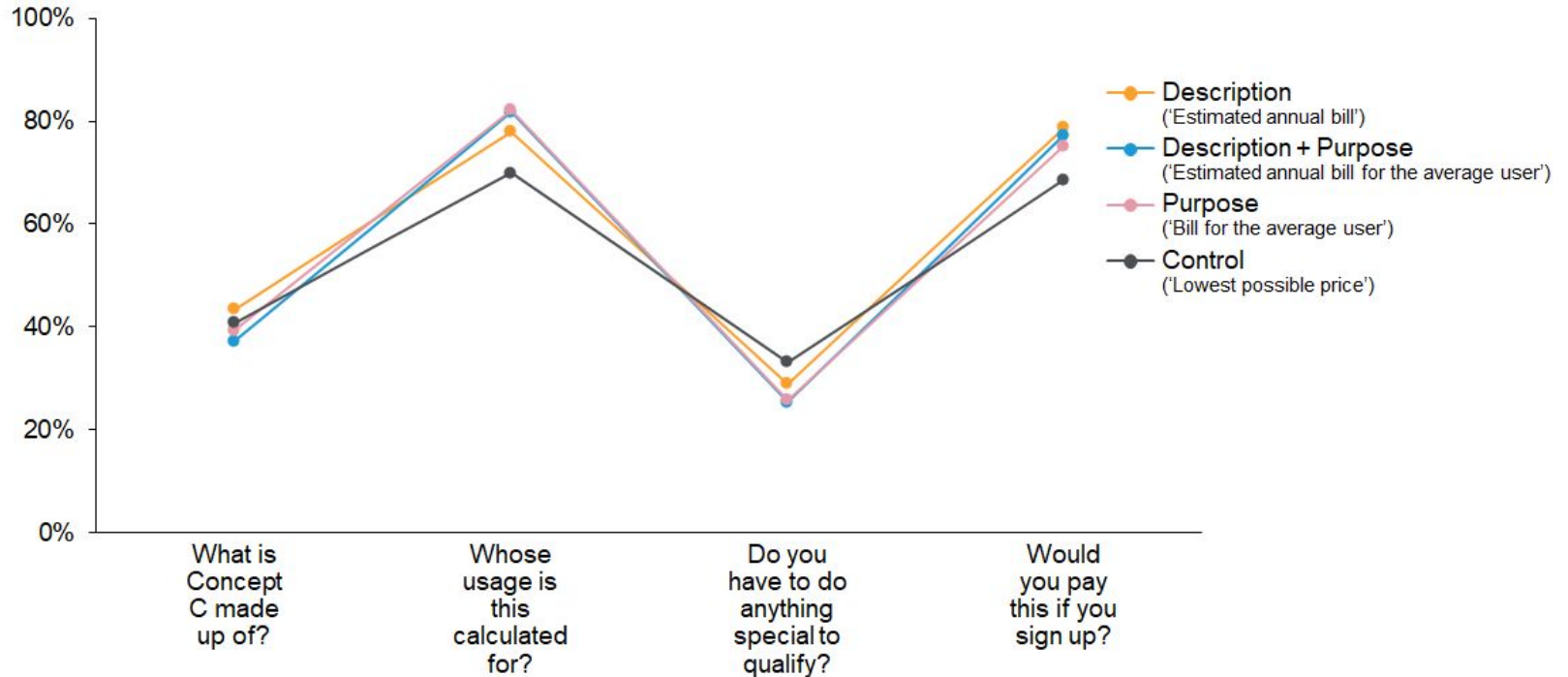
Concept C. 'Lowest possible price'



...the Description treatment is most effective for explaining the lowest possible price

Concept C: proportion of correct answers by treatment group by question

%



Concept C. 'Lowest possible price'



Basic understanding of concept C is good, but not all participants understand key nuances

- Basic knowledge (as represented by questions 13 and 15) is reasonably good, but there are still some more advanced aspects (reflected in questions 12 and 14) that consumers do not fully comprehend.
- There is generally good comprehension about the fact that the lowest possible price is calculated for an average user - and notably, all treatments see sizeable increases in this already high proportion (see blue boxes). This may be due to the fact that understanding of concept C relies on understanding of who concept A applies to and how it is calculated. As all treatments improved understanding of this aspect of concept A, these benefits flowed through to concept C.
- However, it appears that consumers find it difficult to understand the fact that some discounts are conditional whilst others are unconditional (noting that concept C can include both types of discounts), and do not quite grasp all of the details of the specific offers - and the treatments had minimal or small negative impacts on comprehension (orange box).
- These results suggest that there are simple ways to shift comprehension of relatively straightforward concepts, even if comprehension is high (qu's 13 & 15). However, it also suggests that understanding of more complex and difficult concepts is low and is likely to be much harder to shift (qu 12).

Percentage of correct answers for each question in concept C relative to control, by treatment

Question	Control	Description	Purpose	Description + Purpose
12. What is Concept C made up of?	40.8%	+2.6%	-1.4%	-3.6%
13. Whose usage is this calculated for?	70.0%	+8.0%	+12.2%	+11.8%
14. Do you have to do anything special to qualify?	33.2%	-4.2%	-7.4%	-7.8%
15. Would you pay this if you sign up?	68.6%	+10.2%	+6.6%	+8.8%

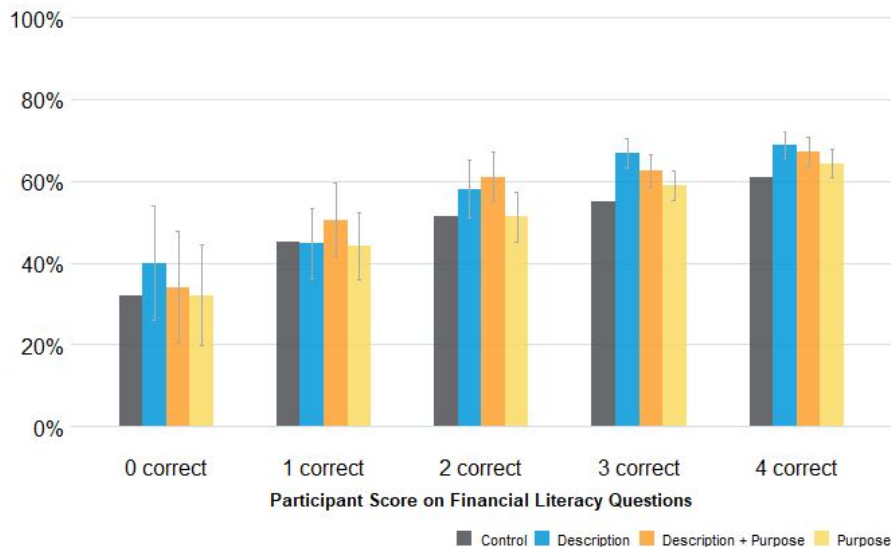
6. Trial results - other insights



There were no substantial differences in comprehension between subgroups

Average proportion of correct answers by by treatment and financial literacy score

%



- In addition to overall results, we also analysed whether there were substantial differences for sub-populations. Specifically, we considered
 - Small businesses vs residential consumers
 - Participants from Culturally And Linguistically Diverse (CALD) backgrounds vs non-CALD backgrounds
 - Different levels of financial literacy
- In general the overall results were reflected in the subgroups. For example, we used a version of the standard financial literacy construct used in the academic literature,¹ modified to include questions that test numeracy. This has been used in multiple trials for the Australian Energy Regulator in the past.
- The breakdown by sub-groups shows that the pattern of results generally holds. Any differences from the pattern of results that were seen in the general population are not statistically significant. Therefore, we would caution against using these sub-group analyses to affect policy decisions.

¹Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: an overview. *Journal of pension economics & finance*, 10(4), 497-508.

²See, for example, [here](#) and [here](#)

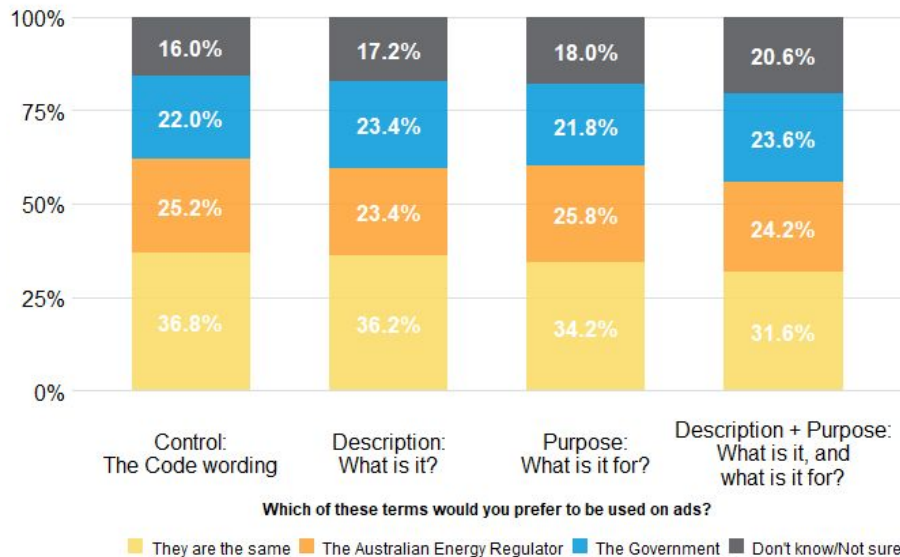
Key insight



There was no clear preference between seeing ‘government’ and the ‘Australian Energy Regulator’ on ads

Participant preferences for terms to be used on energy ads

% of participants



- Participants had no clear overall preference between “benchmark set by the government” and “benchmark set by the Australian Energy Regulator”.
- A slight preference for “set by the government” in the Description and Description + Purpose treatment arms may reflect the fact that participants in these treatments had already been exposed to the term.
- A plurality of respondents (c. one third) were indifferent between the options. From a consumer perspective, both versions are likely to be effective.

7. Recommendations

Recommendation 1

Use of simple descriptive terms in energy advertisements



OK Energy

**Our price is 15% less than the
Benchmark Price set by the
government**

The Estimated annual bill is \$1462

This offer is based on an average household using 4900 kWh / yearly on a flat rate tariff in the Endeavour Energy network. Your bill will differ based on your actual usage.

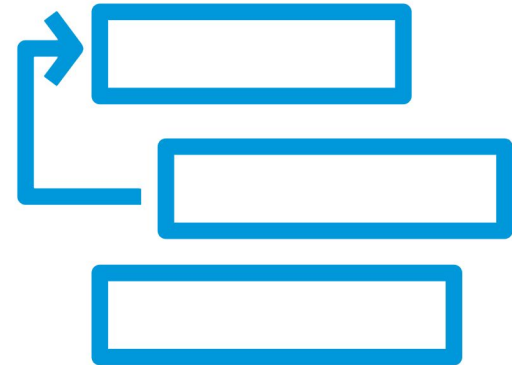
- The Description arm was consistently the best performer across all the concepts, with the largest increase in comprehension and the only arm that had highly significant increases for all three concepts.
- This suggests that using relatively simple terms that focus on describing the key and relevant aspects of concepts is the most effective strategy for increasing comprehension.
- We should avoid relying on critical information or explanation in fine print, as this is unlikely to be sufficient to overcome comprehension issues.
- Based on our interviews, we recommend using full sentences (for example, 'the price set by the government') rather than more compact, technical sounding formulations (such as 'Government Price'), which can be hard for non-experts to understand.

Recommendation 2

Prioritise improving comprehension for the most important concepts



- Consumers baseline understanding of the three concepts is low, and with limited real estate on an advertisement (and a limited span of attention from busy consumers), it is impossible to explain all important features of an energy plan in detail.
- **It is therefore critical to prioritise the elements of each concept that are most important for consumers to understand, and focus efforts to increase comprehension on these.**
- For example, in relation to concept A, we recommend that the main focus should be on who sets it: for consumers, not realising the government sets the reference price means it is distrusted, and undermines its usefulness. Making it common knowledge that the reference price (or 'benchmark price') is set by the government could give consumers much more confidence as they navigate the energy market.



Recommendation 3

Tell consumers that the 'reference price' is set by the government



- The easiest way to ensure that consumers understand who sets the 'reference price', is to tell them directly.
- In the online trial, telling consumers that the reference price is set by the government resulted in a 15.8% increase in comprehension.
- We recommend that energy ads explicitly state that concept A is 'set by the government'.





List of appendices

Appendix 1 - Interview question list

Appendix 2 - Trial question list

Appendix 3 - Technical Appendix