

ACCELERATED DEPRECIATION RESEARCH

Research Report

December 2024

Agenda

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- 03** Stage 1: Cognitive Testing
- 04** Stage 2: Customer Survey

01

Objective and Approach

Objective:

Obtain independent feedback from a statistically representative sample of Jemena gas customers in relation to proposal for managing financial risk through accelerating capital recovery



Approach:

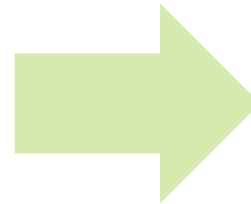
The challenge for this research was ensuring customers understood the complex subject of accelerated depreciation

- To address this challenge, two videos were used to first explain the uncertainty surrounding the future role of gas networks in the Australian energy landscape and accelerated depreciation to customers and then a second to explain the factors Jemena were taking into consideration when exploring options for accelerated depreciation.
- To ensure these videos and the associated transcript were fully understood by customers, we first undertook detailed cognitive testing.



1: COGNITIVE TESTING

A series of 8 iterative online in-depth interviews were conducted with customers to gauge their understanding of and fine tune the video transcripts and survey questions.

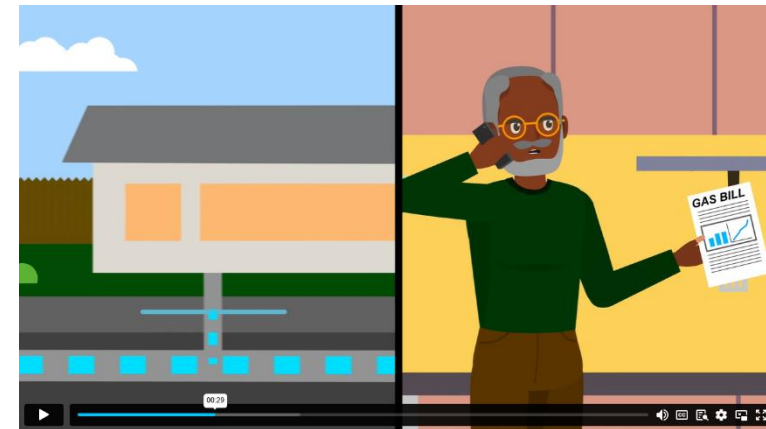


2: ONLINE SURVEY

A large robust and representative survey of 1,000 Jemena Gas customers in NSW.

Videos:

Following the cognitive testing, two videos were produced for respondents to watch prior to answering the survey questions



Click on images to view videos in full

FUTURE OF GAS

3 minute video explaining accelerated depreciation & the future of gas.

JEMENA CONSIDERATIONS

2 minute video explaining the factors Jemena were taking into consideration when exploring options for accelerated depreciation.

Future of Gas Video Transcript:

If respondents had difficulty understanding the video, they were presented with the transcript to read through

Australia is moving toward net zero carbon emissions by 2050, with the NSW Government aiming for a 50% reduction in greenhouse gas emissions by 2030. To meet these targets, the energy sector is undergoing a transformation to renewable energy. This presents significant uncertainty for the future role of gas networks because natural gas contributes to greenhouse gas emissions.

Many predict that gas usage will decline as homes switch gas appliances over to electric ones.

As a gas distribution business, we must plan for the long-term interests of consumers, ensuring our network supports the reduction of carbon emissions through renewable gases.

The challenge lies in how we recover the costs of long-term investments in gas infrastructure, such as pipelines and meters. Imagine you own a coffee shop and recently invested in a \$7,000 coffee machine. You plan to recover the cost over seven years by charging \$5 per cup. However, if customers stop buying coffee due to environmental concerns, you won't recoup your investment unless you raise prices. You can either raise prices now, to avoid less of an increase later as customers stop buying, or keep prices the same for now and have a larger increase later.

The same principle applies to the gas network. If we don't adjust prices now, we may face steeper increases in later years, impacting customers who can't switch to electric alternatives. To avoid this, we can increase prices gradually, allowing for a smoother transition and avoiding large spikes in the future.

We're considering options for how we recover costs to ensure fairness and stability. By acting now, we can keep prices more stable in the long term, ensuring gas remains a viable option alongside electricity.

It's a careful balance, but by addressing these challenges early, we can manage the impacts on customers and support Australia's transition to net zero and reduction in carbon emissions.

We're seeking your feedback on how we plan for the future of gas and how we should charge customers to recover costs for providing gas network services.

Jemena Considerations Transcript:

As discussed in the previous video, to tackle uncertainty we need to consider a range of options including how quickly we recover costs for providing gas network services.

When considering which option to choose, there are many things that Jemena needs to take into consideration.

If we **do not increase prices in the short term**, this means:

- Bills will become higher to recover costs as customers disconnect from the gas network.
- Customers will face much larger price increases over time.
- Customers unable to switch from gas appliances to electric (such as renters, those in hardship) will face higher long-term prices.
- Remaining gas users will face higher prices as fewer customers remain on the network. Remaining gas users will face higher prices as fewer customers remain on the network.
- Lower prices today shifts the future cost burden onto customers still reliant on gas.
- Customers who leave the network early, may not have fully paid for the gas network infrastructure they benefited from.

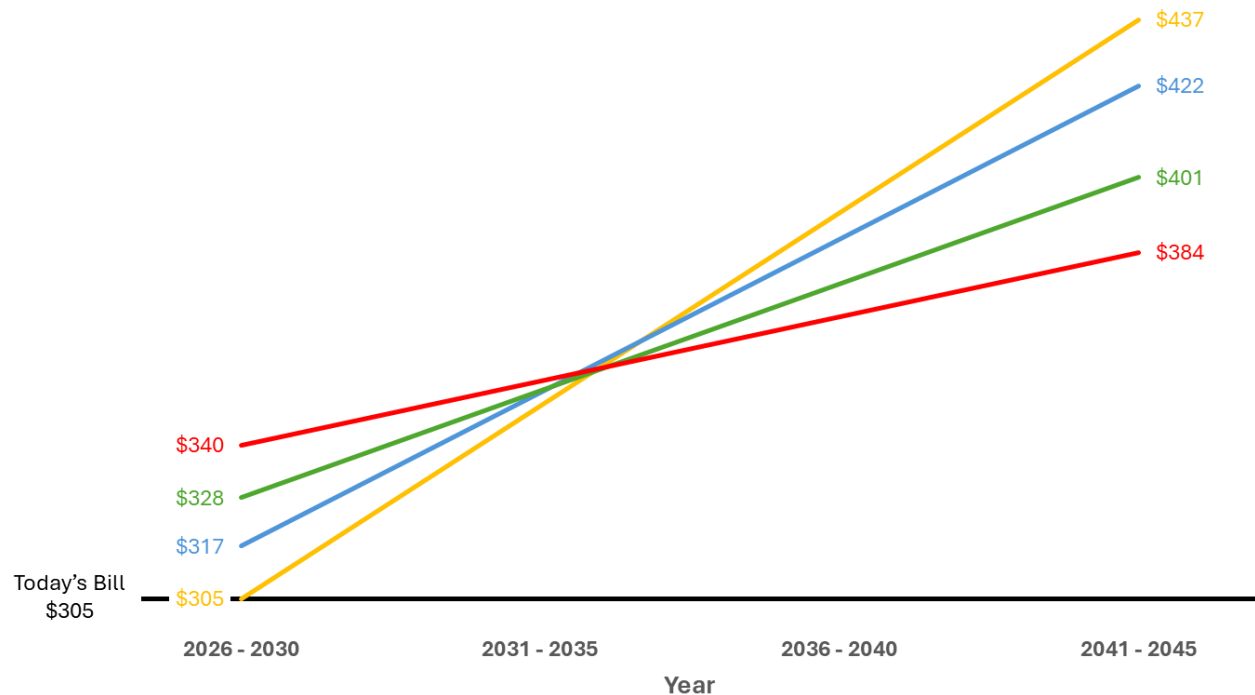
If we **do increase prices in the shorter term**, this means:

- Customers that aren't able to electrify their homes by replacing gas appliances with electric appliances, will be able to stay on the gas network.
- Customers won't face higher prices long term, this includes renters or customers who are experiencing hardship.
- Customers will benefit from lower bills in later years compared to the option of not increasing prices in the shorter term.
- Paying more in the next 5 years will mean all customers will benefit long term with prices remaining more stable.

Understanding Accelerated Depreciation:

Accelerated depreciation was presented to customers from their perspective and the impact it would have on their bill

- During the survey they were presented with 4 options, with varying degrees of accelerated depreciation starting from a low amount of \$100M (yellow) to \$400M (red). This was presented to customers in terms of the impact it would have on their bill.
- They were asked to rank these in order of preference.



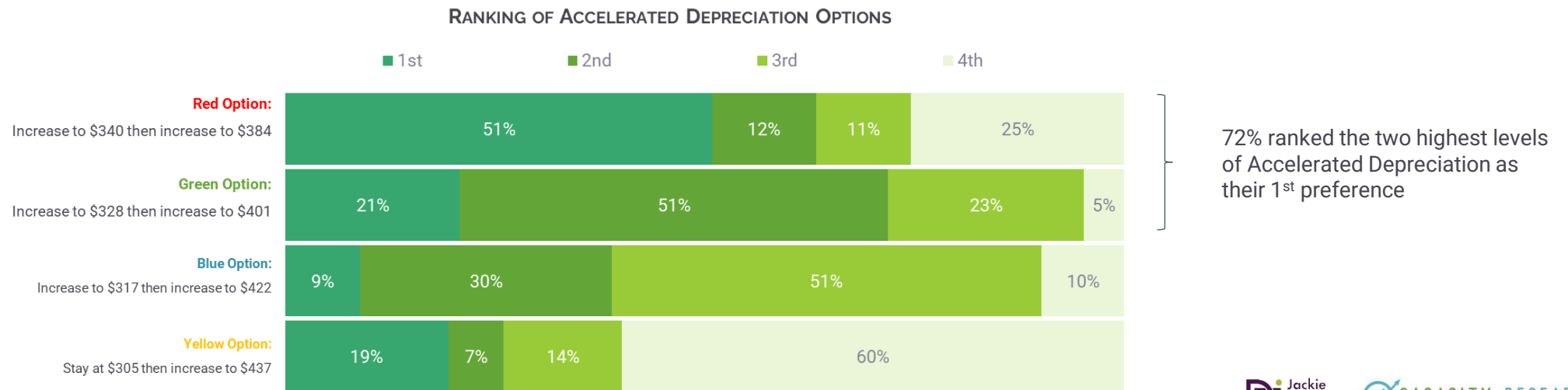
- A. **Yellow Option:** Stay at \$305 then increase to \$437
- B. **Blue Option:** Increase to \$317 then increase to \$422
- C. **Green Option:** Increase to \$328 then increase to \$401
- D. **Red Option:** Increase to \$340 then increase to \$384

02

Summary Headlines

Summary Headlines

- After watching the video, respondents (Jemena Gas Customers) had a very good understanding of the topic being presented to them.
 - 71% stated they understood the topic 'extremely' or 'very' well.
 - This was similar amongst those who also spoke a language other than English (72%) and those without a degree (67%).
- The red option with the highest level of accelerated depreciation was ranked #1 by half (51%) of all customers.
 - However, a quarter (25%) also ranked this same option last at #4.
- The green option with the next highest level of accelerated depreciation did not receive as many ranking it first (21%), however fewer ranked it last (5%).
- While the ranked order stayed the same, customers intending to switch to electric and those who struggle to pay their gas bills ranked the option with the highest level of accelerated depreciation a little lower.
 - Those who struggle to pay their bills also ranked the option with least accelerated depreciation higher than other customers.



NB/ Results may not total 100% exactly due to rounding

Summary Headlines cont...

- Positively, almost three quarters (72%) of respondents took others outside of their household into consideration.
 - Those who have trouble paying their bills were more likely to consider others experiencing financial hardship (51% Vs 44% overall).
- After watching the video which presented the factors Jemena was taking into consideration, just over a quarter (27%) changed their ranking order.
 - Those on a lower income (<\$80) and those struggling to pay their bills were more likely to change their minds, 33% and 35% respectively.
- However, despite this the overall ranking results were unchanged, with as many changing their rankings up as down for each option.

03

Stage 1: Cognitive Testing

Recommended changes to video script and imagery

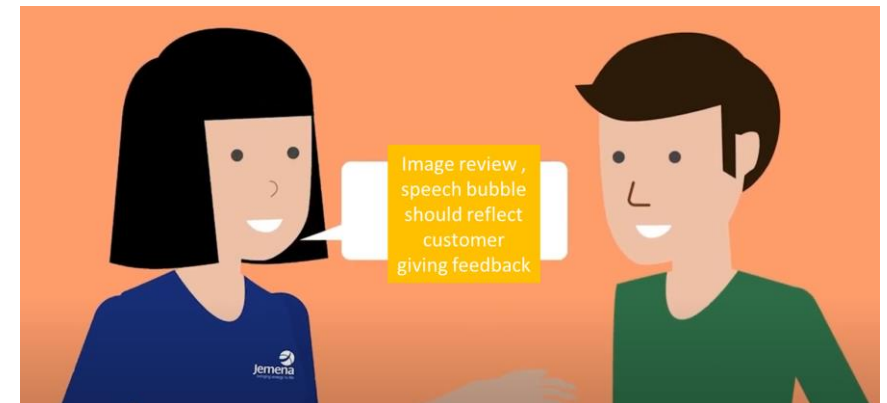
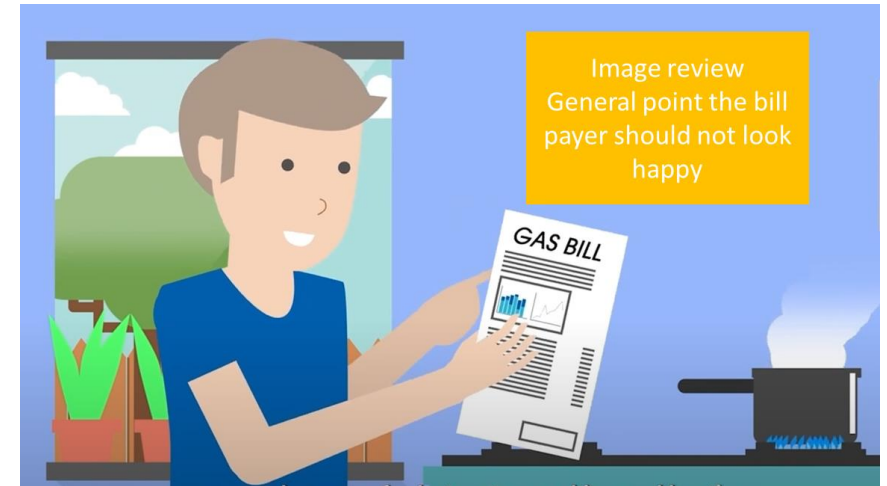
- Two iterations of cognitive testing were conducted, the first 4 interviews evaluated the script survey.
- The script was then fine-tuned and a story board / script produced. A further 4 interviews were then conducted for revision. The outputs informed the development of final videos and the survey for quantitative assessment.

Video script fine tuning

- Simplifying explanations, eliminating repetition, shortening sentences, ensuring terms / sentences are easily understood and expressed in plain English. Examples include:
 - Rewording '*decarbonisation*' to '*reduction of carbon emissions*'.
 - Simplifying sentences:
 - '*Customers unable to electrify their homes switch from gas appliances to electric*' to '*Customers unable to switch from gas appliances to electric*'
 - '*If we do nothing, with no price increases to prices in the shorter term*' reworded to '*If we do not increase prices in the short term*'

Imagery fine tuning

- Highlighting any supporting imagery that is confusing or does not support the script and suggesting how to optimise imagery (examples below).



Survey optimisation

How best to depict data points to illustrate accelerated depreciation

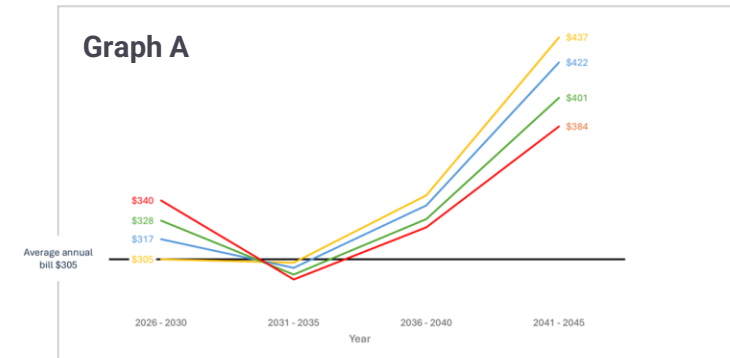
- Findings indicated that the graph needs to be clean and simple, with 4 date points
 - Graph A; Participants highlighted the importance of charts being less busy and that correct terms are used. e.g. "bill" rather than "price"
 - Graph B; Having only 2 date points was slightly more difficult to interpret, preference for a more traditional graph that customers are more likely to have come across in other contexts

- Graph should include an anchor point, i.e., bill \$305

How many price options would customers be able to comfortably assess

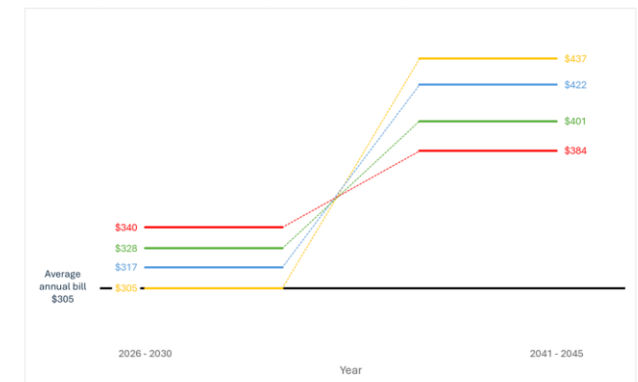
- 4 pricing options were seen as optimal, 6 options were rejected as too confusing / difficult to assess

Q3.7 The image below presents a variety of options for how gas prices might be managed now and in the future. Please take a moment to review the image and then rank these options from 1 (most preferred) to 4 (least preferred).



	Rank
Blue Option: Increase to \$317 then increase to \$422	2
Yellow Option: Stay at \$305 then increase to \$437	3
Green Option: Increase to \$328 then increase to \$401	1
Red Option: Increase to \$340 then increase to \$384	4

Q3.7 The image below presents a variety of options for how gas prices might be managed now and in the future. Please take a moment to review the image and then rank these options from 1 (most preferred) to 4 (least preferred).



	Rank
Blue Option: Increase to \$317 then increase to \$422	2
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* Two options tested in cognitive testing

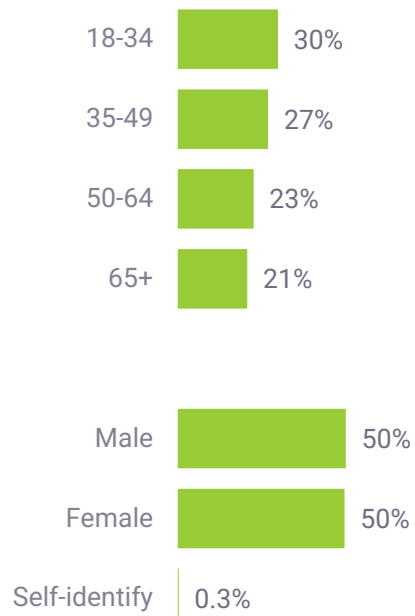
04

Stage 2: Customer Survey

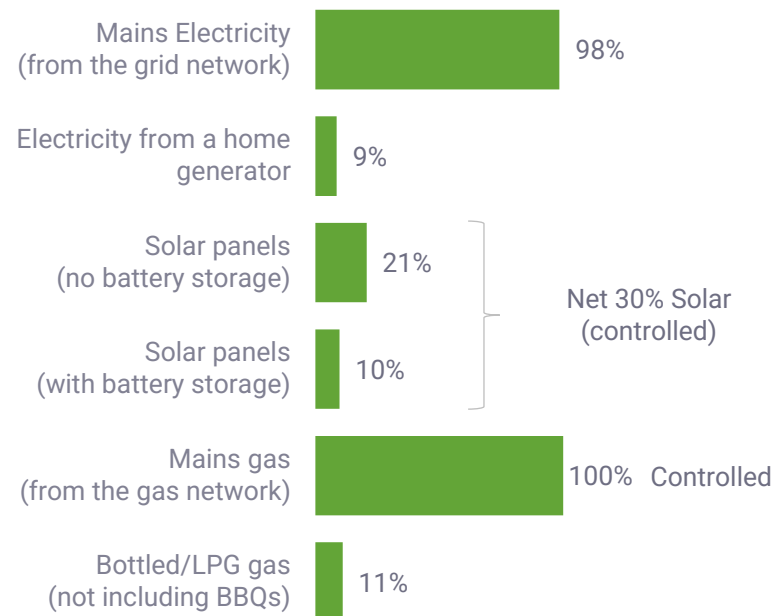
Participants were recruited for the online survey to provide a representative profile of Jemena gas customers in NSW

- Weighting was used to fine tune the profile of the final data to match ABS statistics for age and gender.
- Additional targets were set by energy source to ensure all were using mains gas, and 30% had solar (sourced from cleanenergyregulator.gov.au data).
- Participants were also required to be decision makers – having some responsibility for bills and energy supplier decisions.

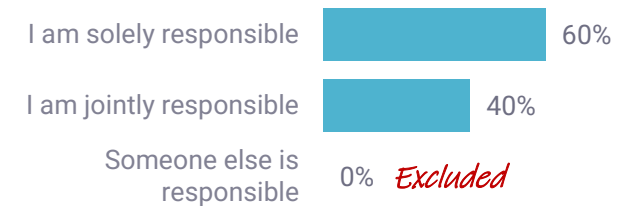
AGE / GENDER



ENERGY SOURCES



RESPONSIBILITY FOR BILLS & ENERGY SUPPLIER DECISIONS

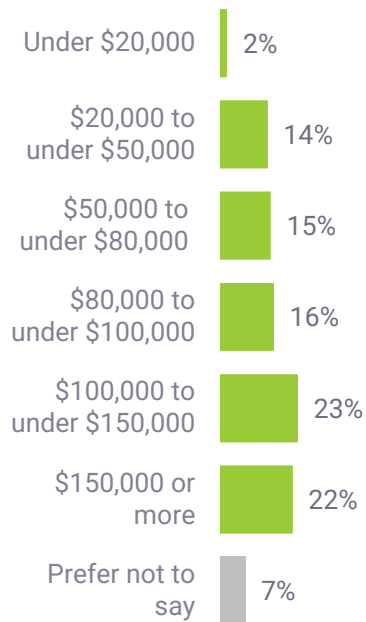


NB/ Results may not total 100% exactly due to rounding

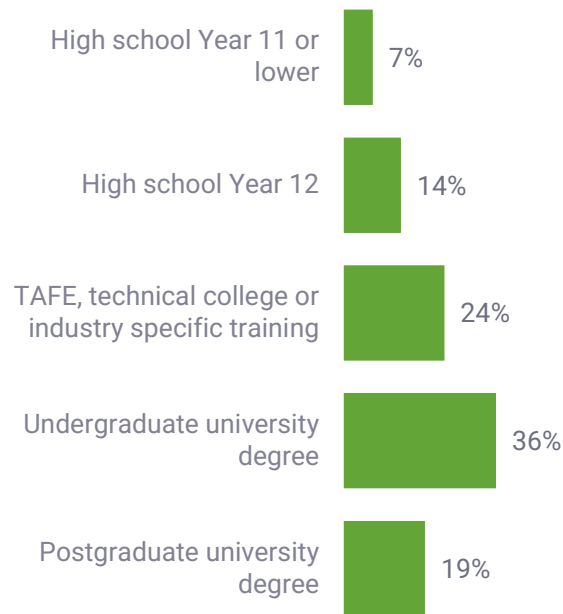
The sample provided a range of households by income, education and ethnicity

- Results have been cut across all profiling variables.

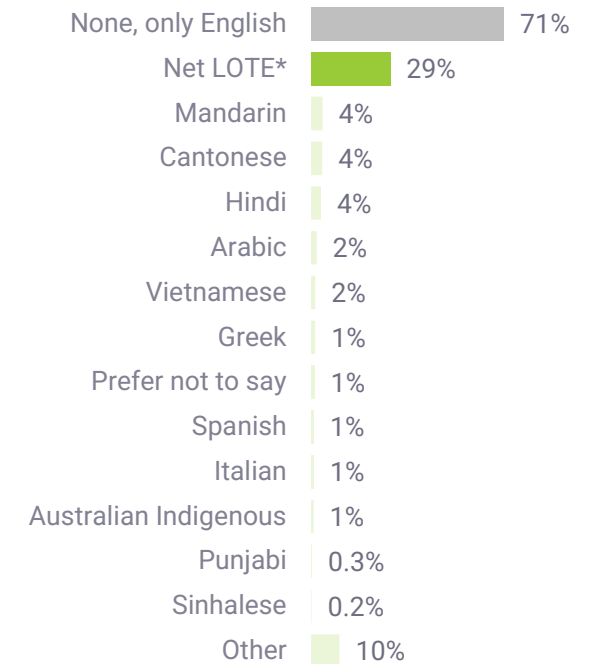
HOUSEHOLD INCOME



HIGHEST LEVEL OF EDUCATION



LANGUAGES SPOKEN AT HOME



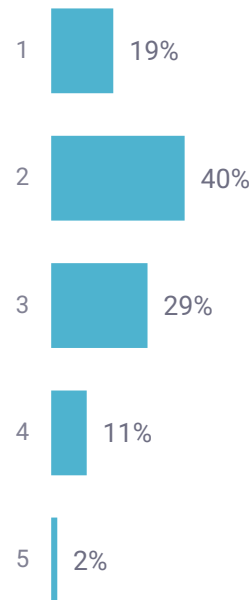
NB/ Results may not total 100% exactly due to rounding

* Languages other than English

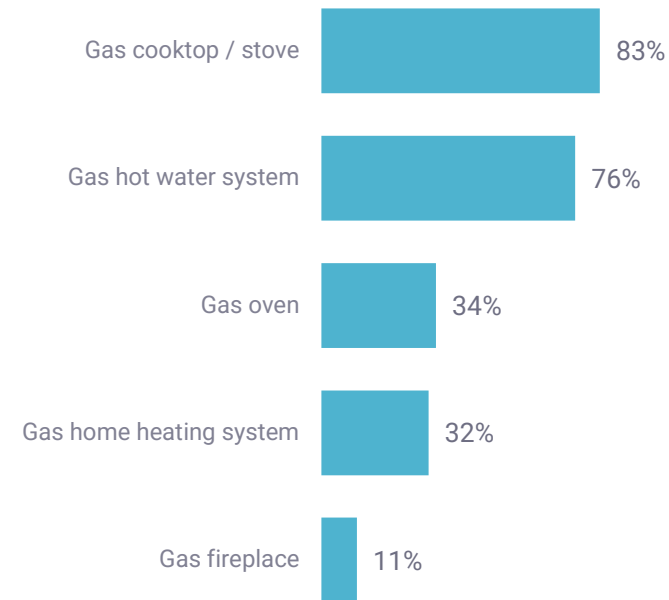
On average homes have 2.5 gas appliances, with cooktops and hot water the most common

- For the analysis we are able to look at homes that were more (3+ appliances) or less (2 or less) reliant on gas.

NUMBER OF GAS APPLIANCES



GAS APPLIANCES

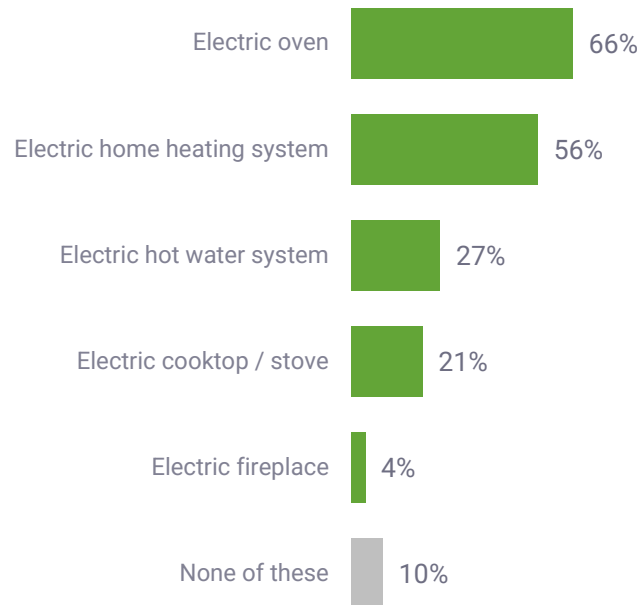


NB/ Results may not total 100% exactly due to rounding

1 in 5 homeowners stated they had switched at least one of their electric appliances over from gas

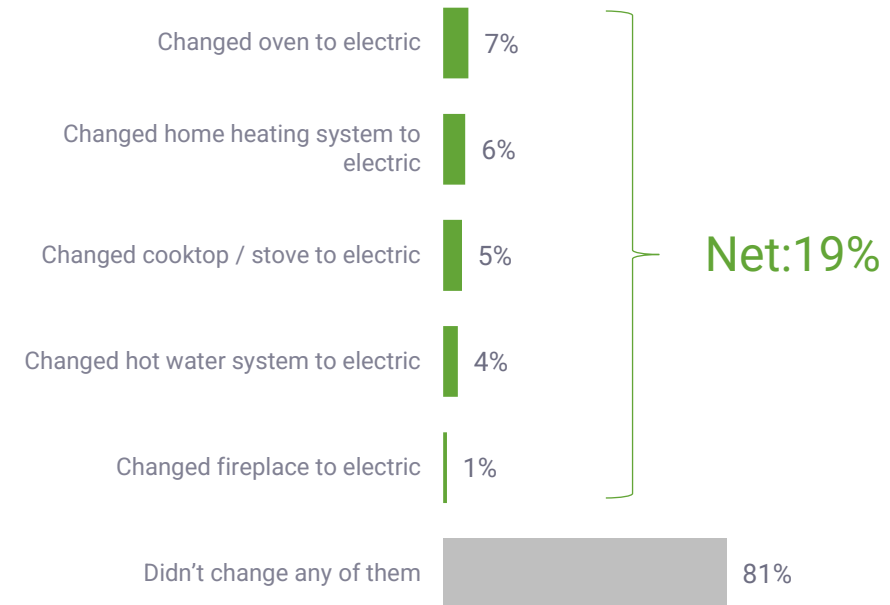
- These customers who have started moving away from gas are used as a subset for analysis.

ELECTRIC APPLIANCES



ANY APPLIANCES CHANGED FROM GAS

(HOMEOWNERS ONLY)



NB/ Results may not total 100% exactly due to rounding

Q2.1: which of the following electric appliances do you have in your household?

Q2.2: Did you change any of these electric appliances over from gas ones?

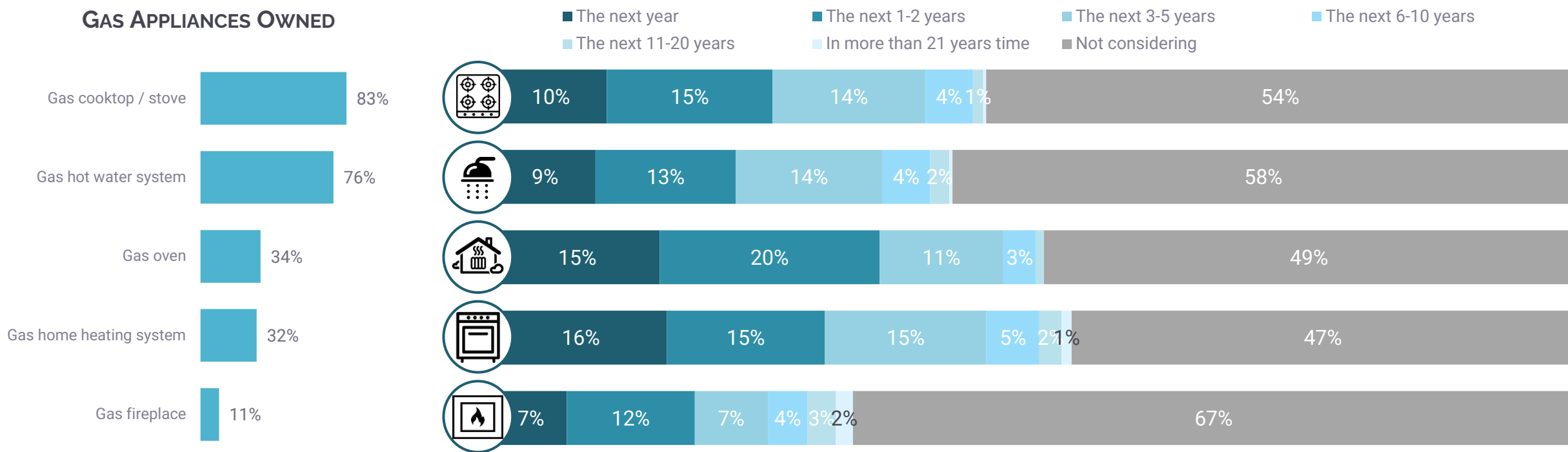
Base: All respondents n=1,006, Homeowners with electric appliances n=621

1 in 10 or more are considering switching some gas appliances over to electric

- Intent to switch is cost driven, with those intending to switch more likely to view electricity as a cheaper energy source (35% Vs 19%).
- Those considering a move to electric (next 5 years) and those with not intending to switch are used as subgroups from analysis.
- Just over half, 56%, stated they would disconnect from gas if they were no longer using gas appliances.

CONSIDERATION TO REPLACE WITH ELECTRIC APPLIANCE

GAS APPLIANCES OWNED



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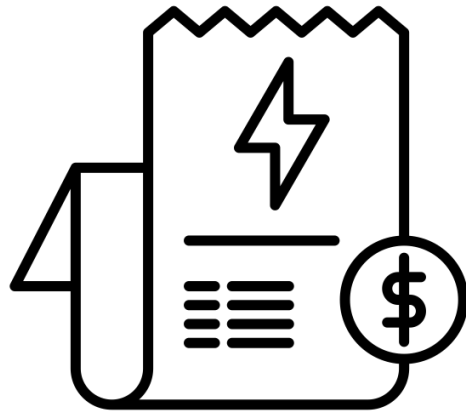
Q2.0: Which of the following gas appliances do you have in your household? Q2.3: Are you considering replacing any of your current gas appliances with electric ones?

Q2.4: If you are / were no longer using any gas appliances, would you disconnect your home from the mains gas connection?

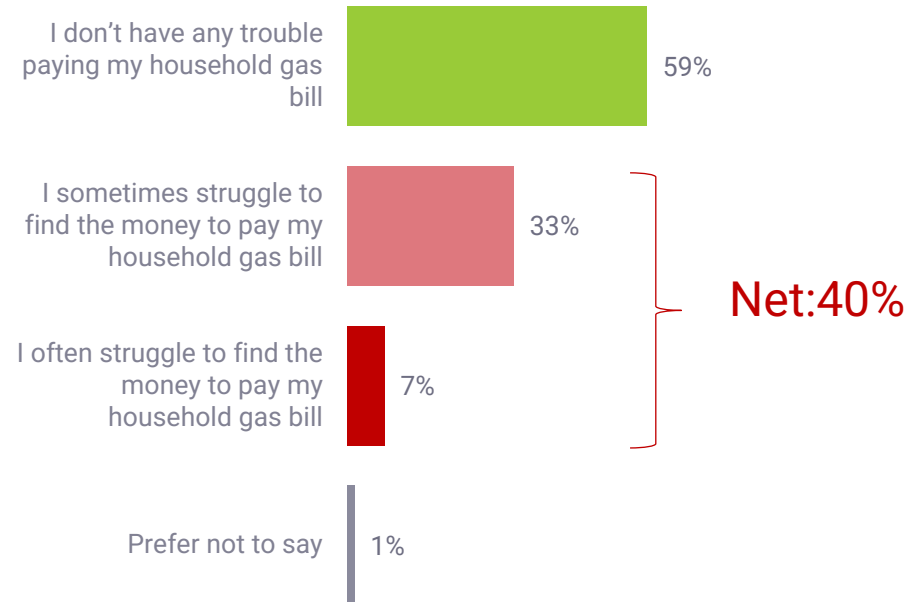
Base: All respondents n=1,006; cooktops n=564, hot water n=519, heating n=242, oven n=220, fireplace n=92

Just under 1 in 10 households are currently experiencing hardship when paying their gas bill

- While 2 in 5 struggle at some stage, this provide a subset for analysis.

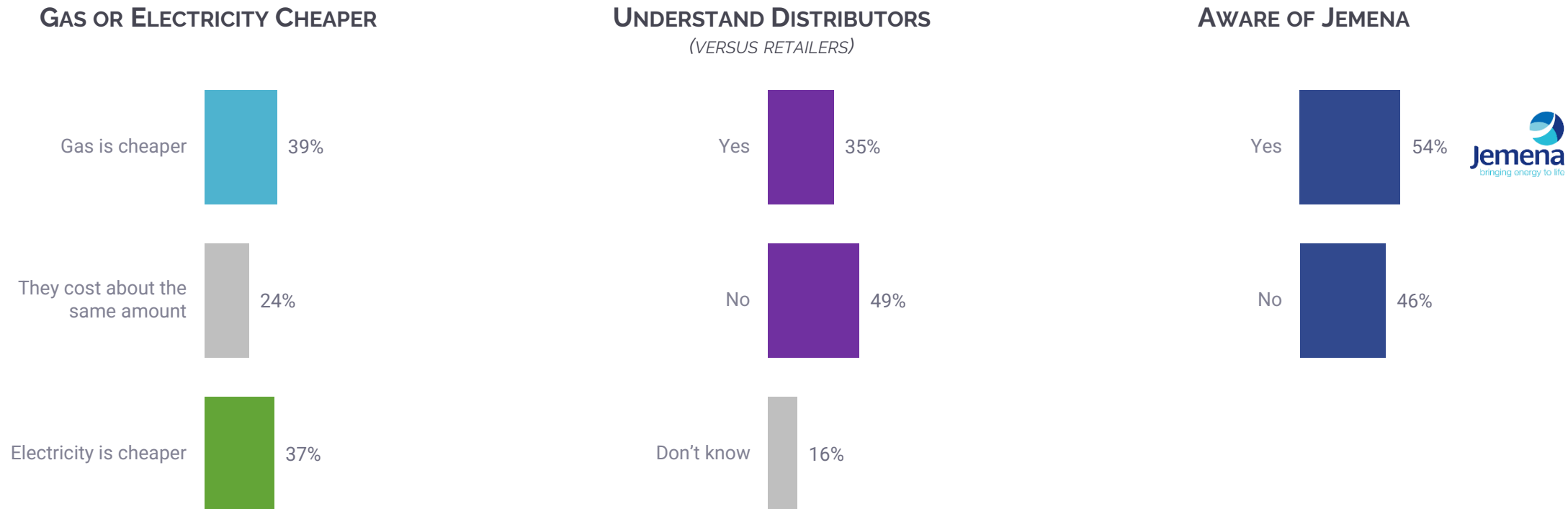


ABILITY TO PAY BILLS



NB/ Results may not total 100% exactly due to rounding

Differences in results were also explored by perceptions of energy prices, knowledge of distributors and awareness of Jemena



NB/ Results may not total 100% exactly due to rounding

Almost three quarters felt they understood what was presented to them in the video 'extremely' or 'very' well

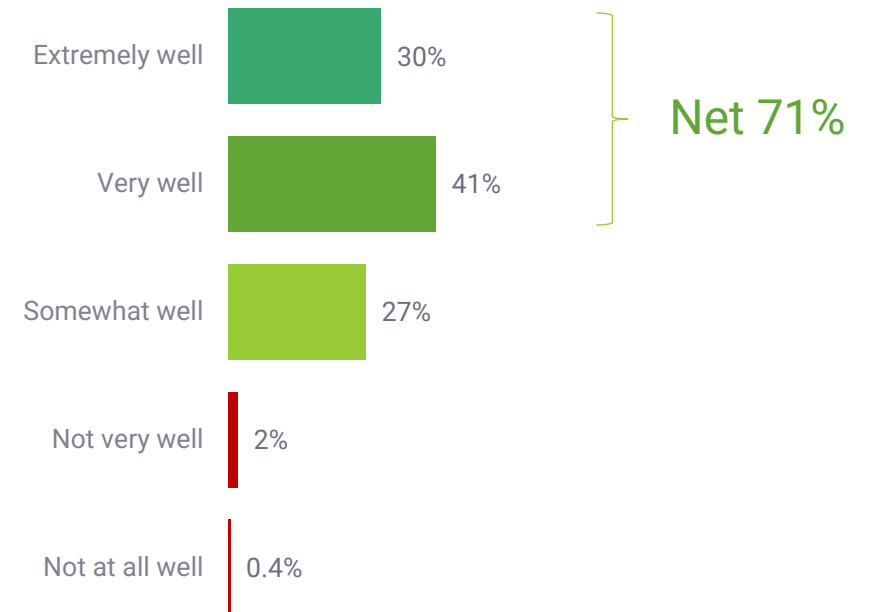
- Those who felt they did not understand what was presented to them, were given the opportunity to read through the video transcript.



FUTURE OF GAS

3 minute video explaining accelerated depreciation & the future of gas.

HOW WELL UNDERSTOOD



NB/ Results may not total 100% exactly due to rounding

There were no differences in understanding by ethnicity or education level

HOW WELL UNDERSTOOD

	TOTAL (n=1,006)	English only (n=1,006)	LOTE* (n=314)	Degree (n=587)	No degree (n=419)
Extremely well	30%	30%	30%	29%	31%
Very well	41%	40%	42%	44%	36%
Somewhat well	27%	28%	25%	26%	29%
Not very well	2%	2%	2%	1%	3%
Not at all well	0.4%	0.5%	0.3%	0.3%	0.5%

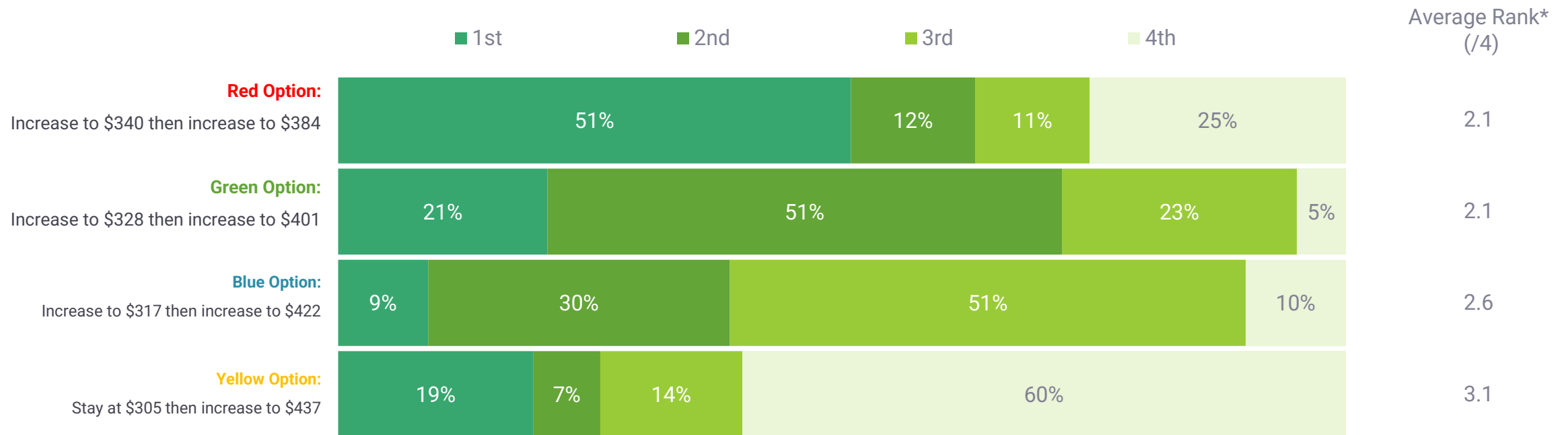
* Languages other than English spoken

NB/ Results may not total 100% exactly due to rounding

The 'red' option with the highest level of accelerated depreciation was ranked #1 by half of all customers

- However, a quarter also ranked this same option last at #4.
- While the 'green' option did not receive as many ranking it first, fewer ranked it last, so the average ranking was the same as the 'red' option.

RANKING OF ACCELERATED DEPRECIATION OPTIONS



NB/ Results may not total 100% exactly due to rounding

* Note that a lower score indicates a higher ranking

Customers intending to switch to electric and those who struggle to pay their bills ranked the 'red' option lower

AV. RANKING OF ACCELERATED DEPRECIATION OPTIONS

Average Rank (/4) <i>* Note that a lower score indicates a higher ranking</i>	TOTAL (n=1,006)	1 – 2 Gas Apps (n=579)	3+Gas Apps (n=427)	Switched some to electric (n=124)	Intending to switch some (next 5yrs) (n=335)	English only (n=1,006)	LOTE* (n=314)	Degree (n=587)	No degree (n=419)	No trouble paying bills (n=581)	Sometimes / often struggle to pay (n=410)
Red Option: Increase to \$340 then increase to \$384	2.1	2.1	2.1	2.4	2.3	2.1	2.2	2.2	2.0	2.0	2.3
Green Option: Increase to \$328 then increase to \$401	2.1	2.1	2.1	2.2	2.1	2.1	2.1	2.1	2.2	2.1	2.2
Blue Option: Increase to \$317 then increase to \$422	2.6	2.6	2.6	2.6	2.6	2.6	2.7	2.6	2.6	2.7	2.6
Yellow Option: Stay at \$305 then increase to \$437	3.1	3.1	3.1	2.9	3.1	3.2	3.0	3.1	3.2	3.3	3.0

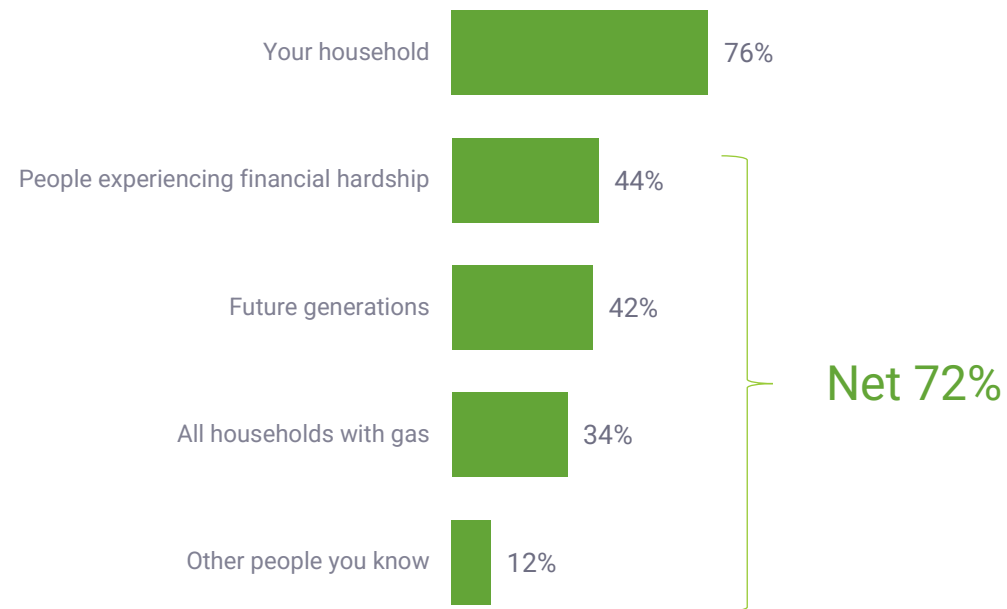
* Languages other than English spoken

Green and Red indicates Statistical differences (95%)

Positively, almost three quarters took others outside of their household into consideration

- Those who have trouble paying their bills were more likely to consider others experiencing financial hardship (51%).

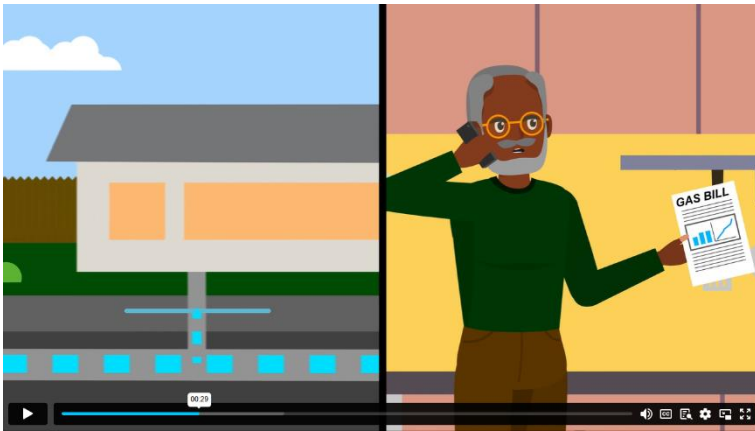
WHAT WAS TAKEN INTO CONSIDERATION



NB/ Results may not total 100% exactly due to rounding

After nominating who they took into consideration, respondents were shown a video explaining what Jemena was taking into consideration

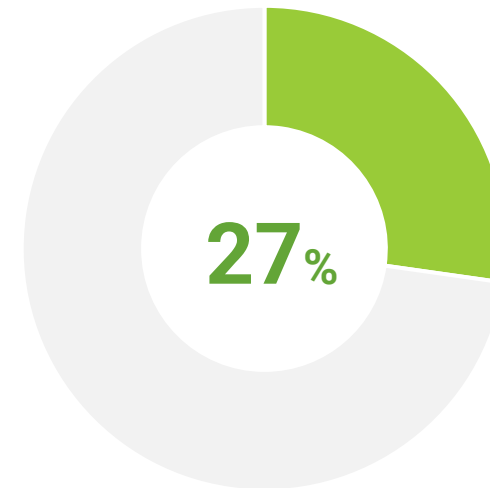
- Following this, just over a quarter changed their ranking.
- Those on a lower income (<\$80k pa) and those struggling to pay their bills were more likely to change their minds, 33% and 35% respectively.



JEMENA CONSIDERATIONS

2 minute video explaining the factors Jemena were taking into consideration when exploring options for accelerated depreciation.

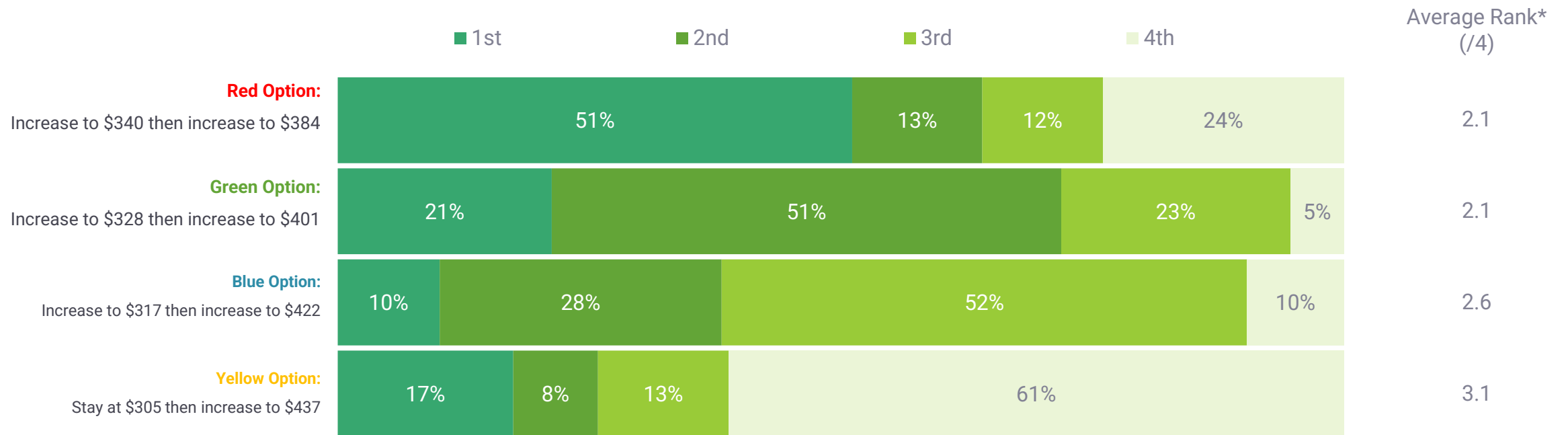
CHANGED THEIR RANKING



Despite a quarter changing their rankings, there was no overall change to the rankings across the options

- Rankings would have changed up and down for each option in equal amounts.
- There were no shifts in the rankings across all subgroups, including income and ability to pay gas bills.

RANKING OF ACCELERATED DEPRECIATION OPTIONS



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* Note that a lower score indicates a higher ranking



Questions? Please get in touch



Web

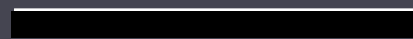
www.sagacityresearch.com.au



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