



United Utilities: Water Resources Management Plan acceptability testing 2022



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Background, objectives & methodology

Background & objectives

All water companies have a statutory obligation to produce a Water Resources Management Plan (WRMP) which sets out how they will meet demand for public water supplies over a minimum of a 25 year period.

After taking into account the opinions of experts, stakeholders and customers, United Utilities has produced a draft version of its WRMP. The WRMP defines United Utilities' strategy to achieve a long-term, best value and sustainable plan for future water supplies in the North West for 2025-2050.

United Utilities needed to test its draft WRMP with both household and non-household customers, as well as future bill payers, to understand its acceptability and to see what, if any, tweaks should be made, ahead of full business plan acceptability testing next year.

It should be noted that a three day heat wave occurred during the fieldwork period, where the North West was subject to amber/red extreme heat warnings. While no water restrictions were implemented in the North West, it should be noted that the issue's salience was likely higher than it would otherwise be.



Methodology

Household

Fieldwork was carried out
July 2022 – August 2022

1,002
interviews



Online &
face-to-face



10 online
depths



Future bill payers

Fieldwork was carried out
July 2022

100
interviews



Online



Non-household

Fieldwork was carried out
July 2022 – August 2022

200
interviews



Online &
face-to-face

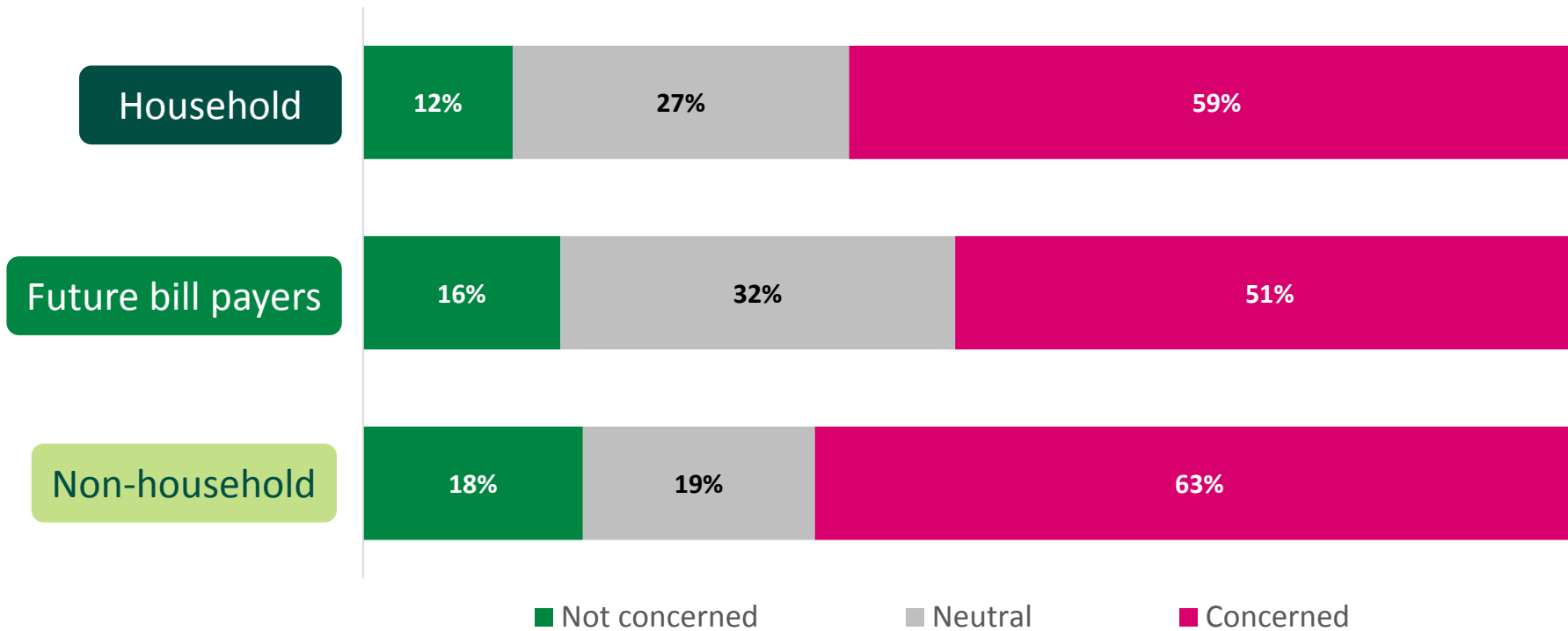


Understanding attitudes

Concern regarding the availability of future water supplies

At least half of respondents for each of the segments say they are concerned about the availability of future water supplies. However, respondents are more concerned about other issues, particularly inflation, with around nine in ten household and non-household customers saying they are concerned about energy prices (seven in ten for future bill payers).

Level of concern around "Availability of future water supplies"



Ranking
Concern relative to other issues:

5/7

6/7

5/6

Levels of service choices

SIMALTO: a statistical tool which helps build a tailored, ideal package



Customers were shown different service levels (including United Utilities' proposed level) for each of the seven areas on the right and were asked to pick their preferred level.



To inform their choices, customers were shown the impact the options had on: supply/demand, customer bills (average monthly 2030 bill for HH/FBP* and % change for NHH), environment/society, and the carbon footprint.



After customers had selected their preferred level of service for each of the seven areas, they were then shown all of their choices on one page as well as a summary of how their plan compared to United Utilities' (including the respective bill impacts). Here customers could either proceed with their choices (providing water supply was above demand) or make final adjustments.

Areas
Digital water metering
Water efficiency
Temporary use bans
Leakage
Taking water from rivers
Taking water from underground
Taking water from reservoirs

Bill impact context

The bill increases associated with the various levels of service was a highly important factor for customers to consider when making their choices. As such, every effort was made to illustrate the bill changes in a meaningful and appropriate way. For household customers and future bill payers, this meant displaying the monthly bill change, rather than annual, after cognitive pilots revealed that monthly amounts were more intuitive for these segments. Meanwhile, for non-household customers, bill changes were presented as a percentage because an average bill for this segment would be meaningless given the degree of bill variability in this group.

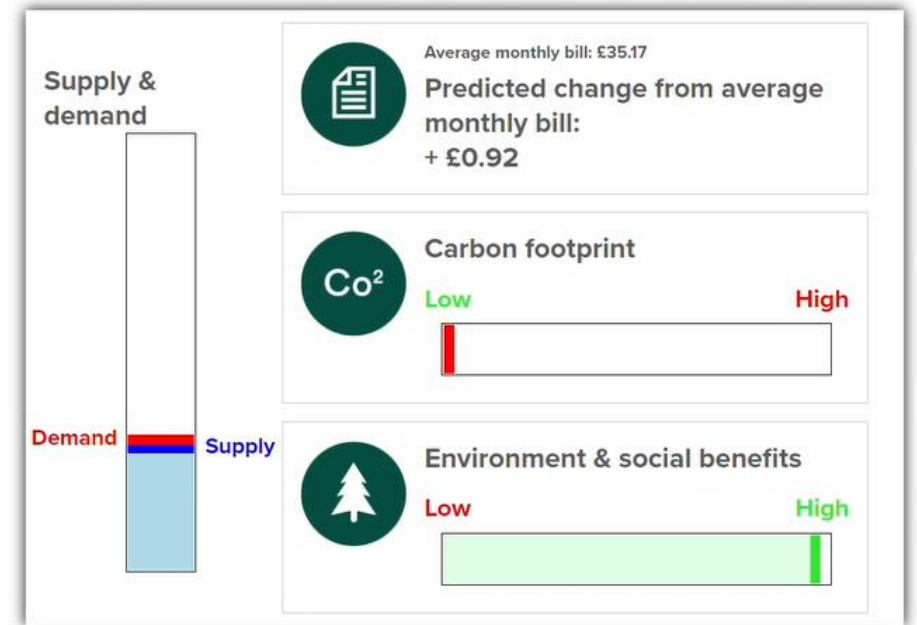
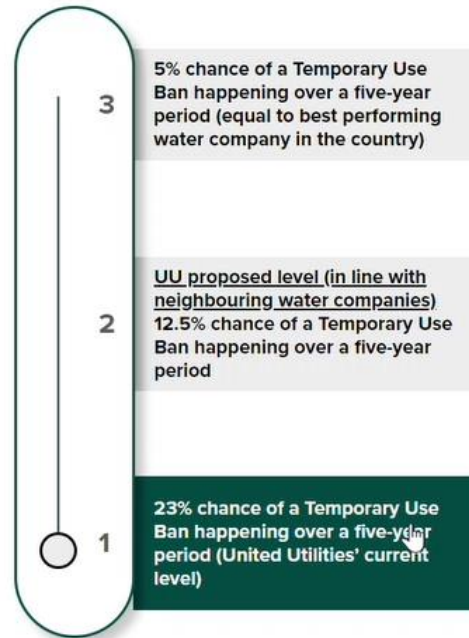
Moreover, to fully contextualise the bill impacts, the text preceding the exercise grounded respondents as much as possible to encourage them to make realistic choices. It explained that: bill impacts did not account for inflation; that other household bills could increase or decrease in the future; that money spent on service improvements would not be available for them to spend elsewhere; and that future household costs would also be affected by rises in costs to goods, services and other bills.



Developing and testing the choice model

In order to create an exercise that was both easy to use and understand for all customers, multiple rounds of cognitive testing were carried out. This involved customers going through the exercise while observed by a DJS researcher in order to gather feedback and establish what improvements could be made.

Online and face-to-face cognitive pilots were carried out and the exercise iterated upon accordingly in order to ensure that it was understandable for respondents and optimised for both methodologies.



Choices for each attribute

	UU-3	UU-2	UU-1	UU proposed level	UU+1	UU+2	UU+3
Digital water metering		15% of customers by 2030	20% of customers by 2030	25% of customers by 2030	30% of customers by 2030	35% of customers by 2030	
Water efficiency	Maintain current activity	Current activity plus wider promotion of free water saving devices for metered customers	Below plus free home audits for metered customers	Below plus subsidised water butts for metered customers	All of the below plus rainwater harvesting and water reuse systems installed in new builds		
Temporary use bans			23% chance over a five-year period (United Utilities' current level)	UU proposed level (in line with neighbouring water companies)	5% chance over a five-year period (equal to best performing water company in the country)		
Leakage		Maintain current activity	20% reduction by 2030	25% reduction by 2030	30% reduction by 2030	35% reduction by 2030	
Taking water from rivers				300 MI/d	310 MI/d	325 MI/d	400 MI/d
Taking water from underground				150 MI/d	160 MI/d	175 MI/d	250 MI/d
Taking water from reservoirs				1200 MI/d	1210 MI/d	1225 MI/d	1300 MI/d

Annual bill impact:
£12.67 /3.00%

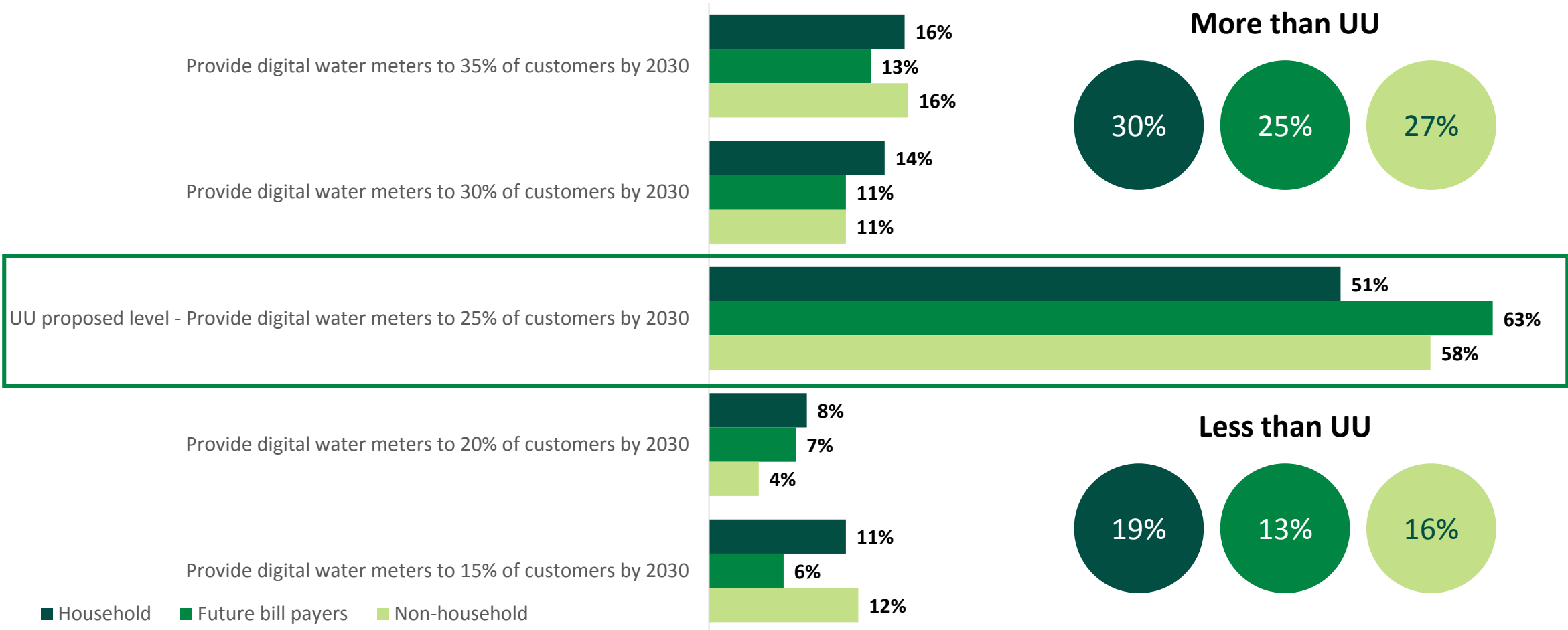
Supply/demand
surplus: **+23MI/d**

Carbon
footprint: **Low**

Environmental &
social cost: **Low**

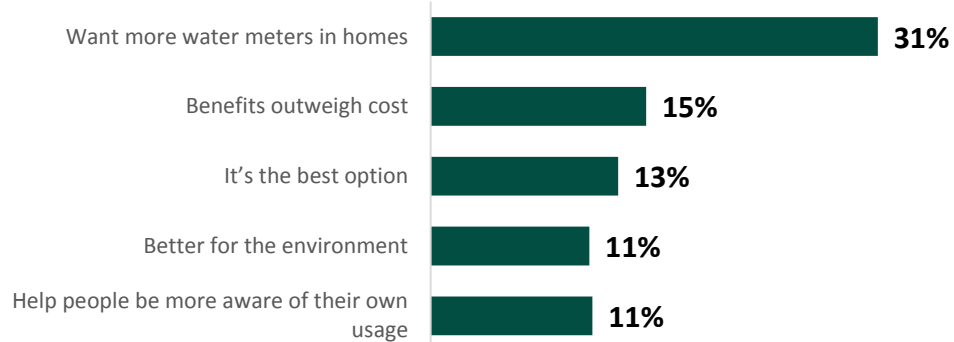
Digital water metering

United Utilities proposed level enjoys majority support for all segments. Those who deviate tend towards a higher level of digital water metering.

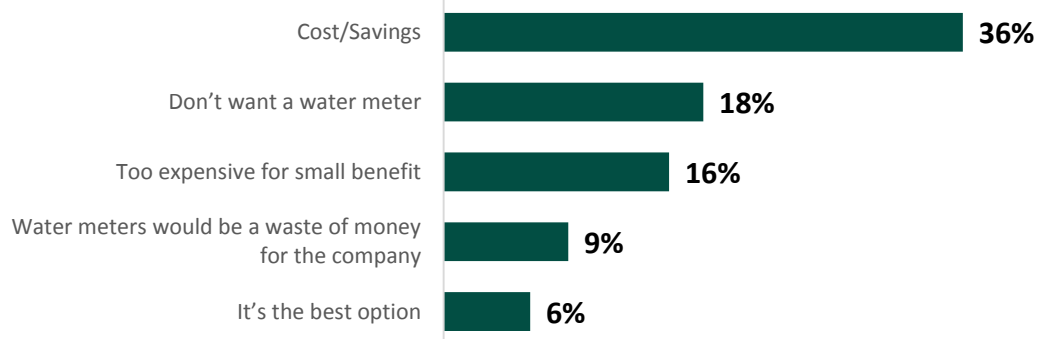


Digital water metering: reasons for choice

Respondents who deviated from UU's proposed level for digital water metering (higher level)



Respondents who deviated from UU's proposed level for digital water metering (lower level)



Qualitative findings

Those who favour higher levels feel that the associated bill increase is small enough to be worth considering the benefits to supply/demand and the greater control for customers.

"I think the demand and supply looks better on the top one and I think people can have more control with a digital water meter."

"I think it's middle of the road without being too extreme. It's doable for everyone."

Advocates for the United Utilities' proposed level see it as a happy medium.

And those who went for a lower level of service primarily looked at the bill increase, with some comforted that lower levels of service only minorly impacted the environmental and social costs.

"There isn't a huge difference in environmental and social so why charge people more?"

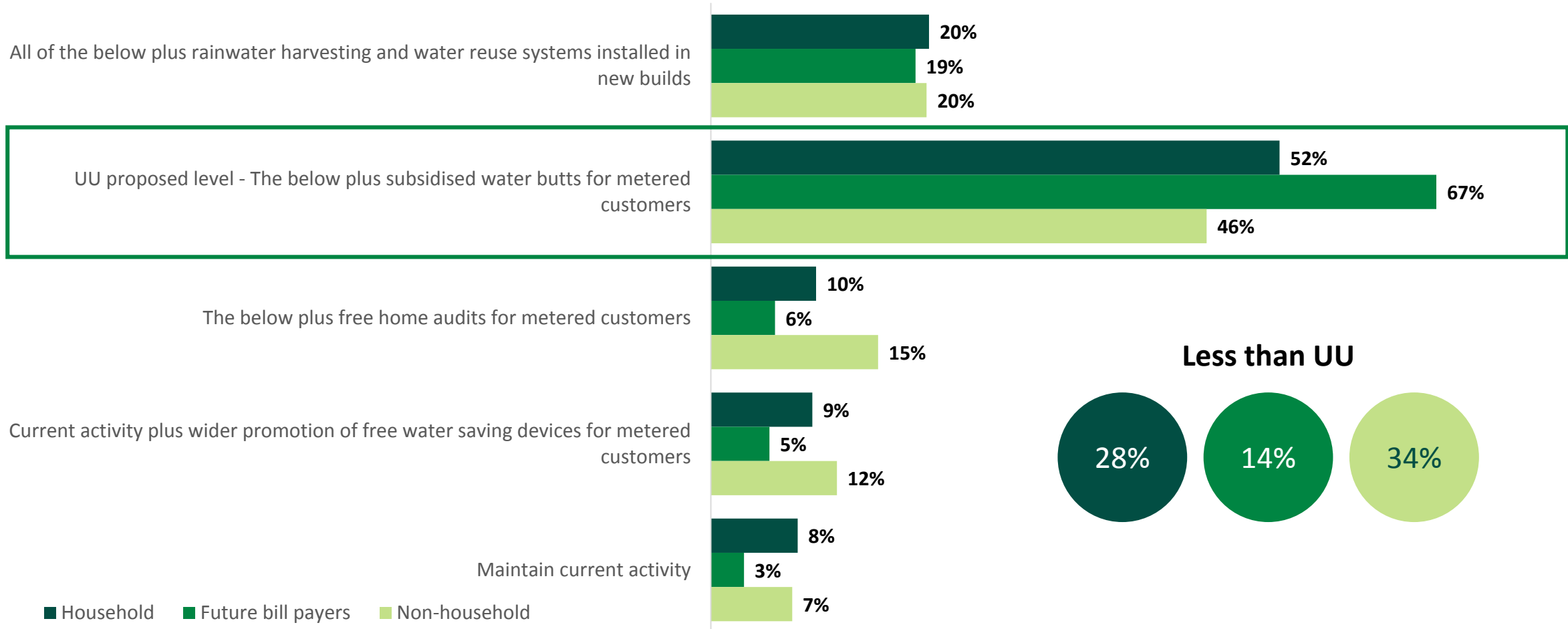
Q06A2. Digital water metering: What made you move the slider away from United Utilities' proposed level of service? Top 5 reasons shown. Base 160 (higher level) / 105 (lower level)

Please note: respondents who deviated from the proposed level had a 4 in 7 chance of being asked the follow-up open.

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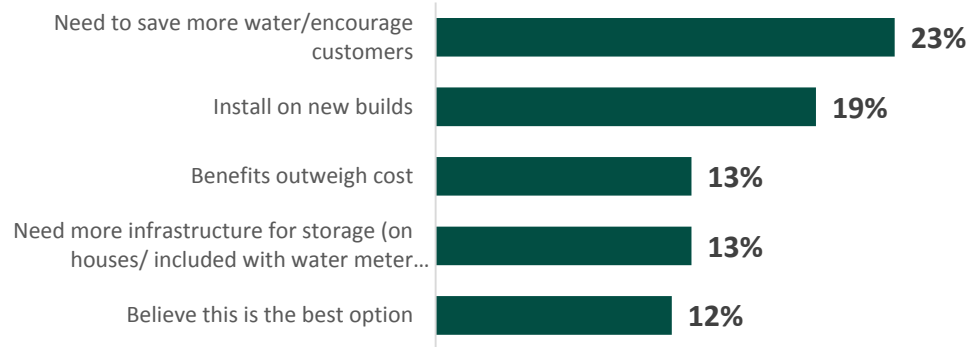
Water efficiency

Two in three future bill payers back United Utilities' proposed level but this falls to around one in two among non-household and household customers. These two segments are more inclined to back a lower level of service compared to future bill payers.

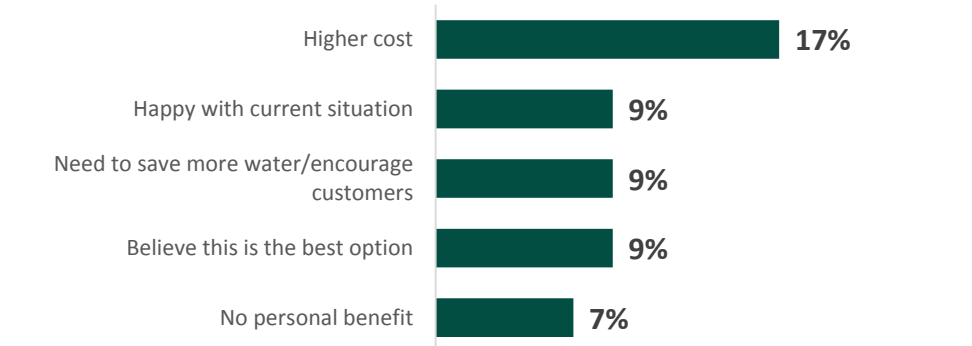


Water efficiency: reasons for choice

Respondents who deviated from UU's proposed level for digital water metering (higher level)



Respondents who deviated from UU's proposed level for digital water metering (lower level)



Qualitative findings

A couple of the participants favoured the top option and were happy to take an altruistic stance and pay more because they believe water reuse systems should be standard in new builds.

“It’s not much of an increase and then water reuse systems will be the new normal when a house is built, saving water.”

“While option 5 [top level] is good, it’s about new builds so it won’t have an impact for most people.”

For the majority, the jump in price to the top option was too much to bear, especially considering it would only benefit a minority. They therefore opted for United Utilities’ proposed level.

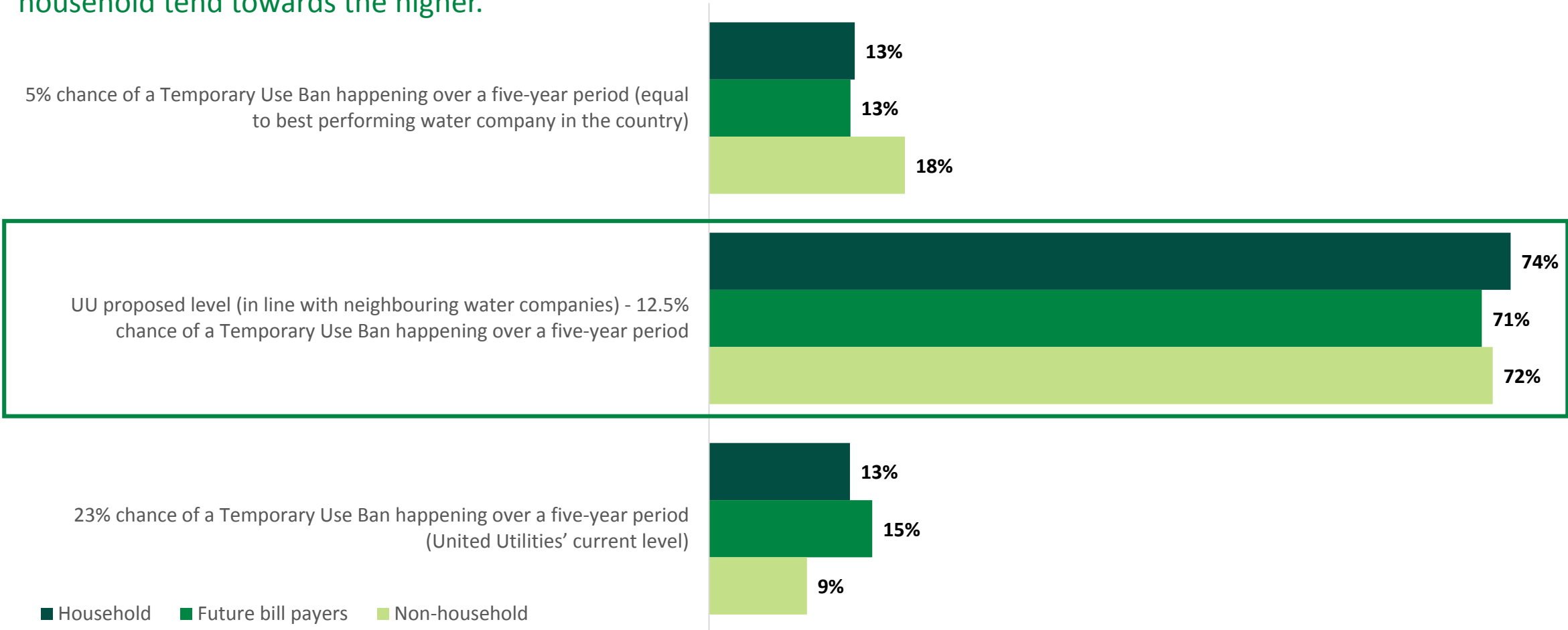
Those who went for the lower options gravitated towards option two. While they like the idea of water saving devices, they are sceptical about the benefits offered at higher levels.

“Not sure how attractive a home audit would be. And if you want a water butt, you’ll get one anyway, regardless of the subsidy.”

Q06B2. Water efficiency: What made you move the slider away from United Utilities’ proposed level of service?. Top 5 reasons shown. Base 97 (higher level) / 99 (lower level). Please note: respondents who deviated from the proposed level had a 4 in 7 chance of being asked the follow-up open. Copyright © United Utilities Water Limited 2019

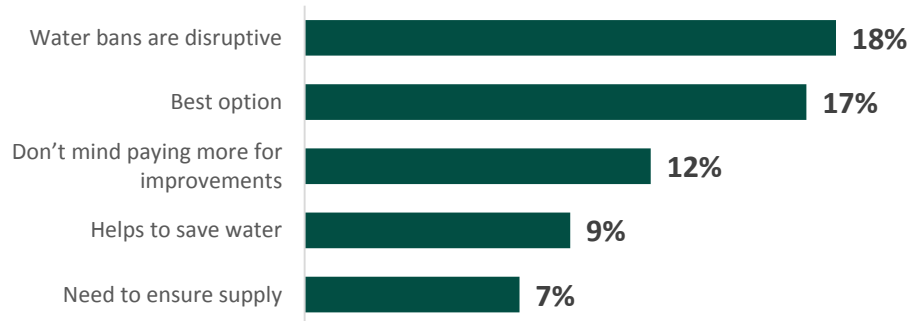
Water restrictions

Around three quarters of customers back United Utilities' proposed level for water restrictions. Those who deviate in the household and future bill payer segments are divided between the higher and lower options, while non-household tend towards the higher.

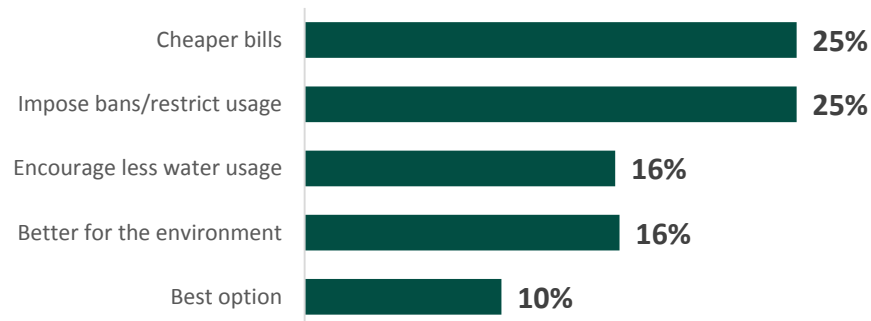


Temporary use ban: reasons for choice

Respondents who deviated from UU’s proposed level for temporary use bans (higher level)



Respondents who deviated from UU’s proposed level for temporary use bans (lower level)



Qualitative findings

The majority of customers in the depth interviews opted for United Utilities’ preferred option. This option was viewed by respondents as offering a sensible level of water security, given that it mirrors the level offered by neighbouring water companies, at a reasonable price.

“It’s good because you’re more or less halving the chance from option 1 [23% chance].”

“12.5% is still quite low and the environmental and social benefits are good, carbon footprint low and there’s a gap between supply and demand.”

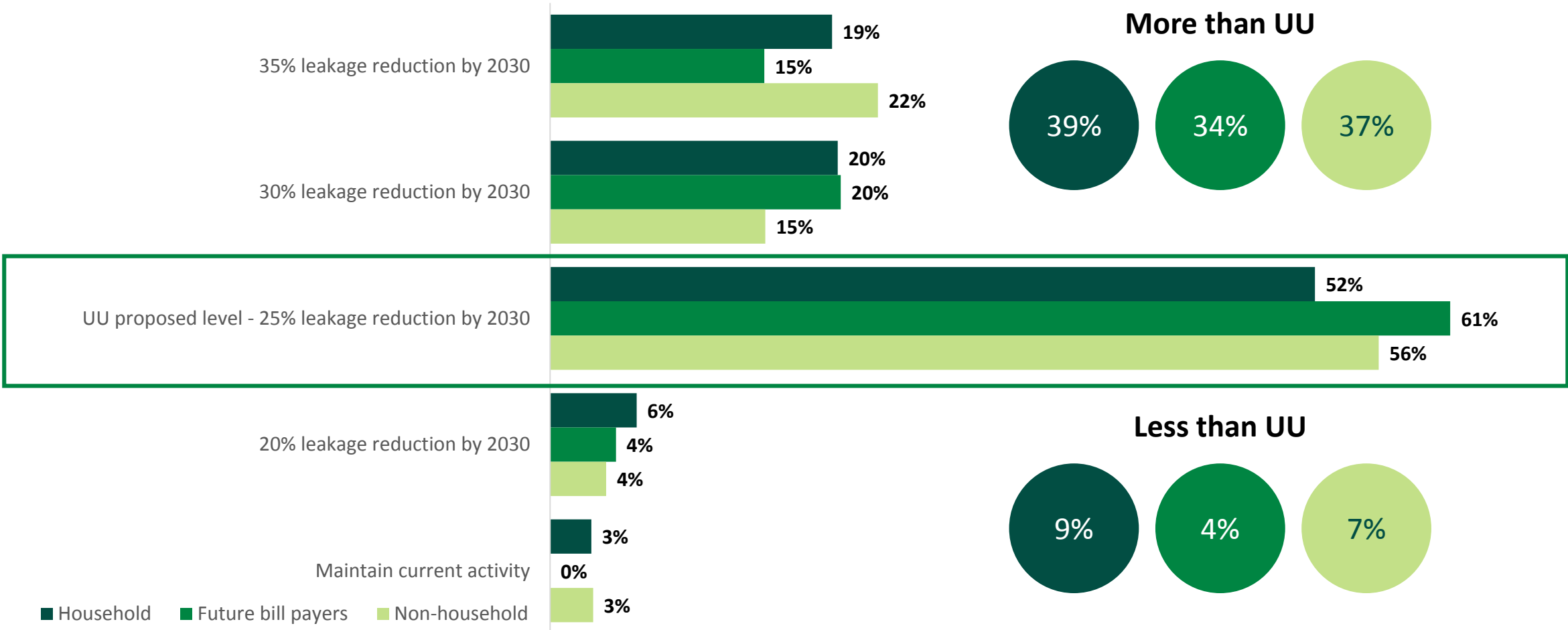
A minority opted to maintain United Utilities’ current level (23% chance) because of the lower cost and higher environmental and social benefits.

“Purely because the price is lower and the environmental and social benefits are higher for it.”

Q06C2. Temporary use ban: What made you move the slider away from United Utilities’ proposed level of service? Top 5 reasons shown. Base 84 (higher level) / 82 (lower level)
 Please note: respondents who deviated from the proposed level had a 4 in 7 chance of being asked the follow-up open.
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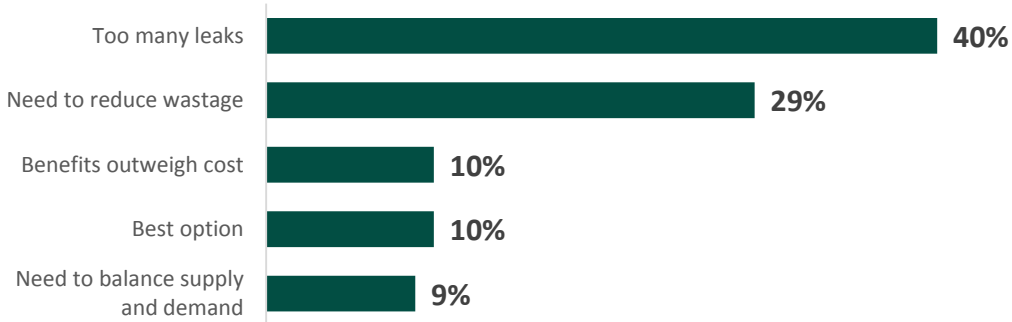
Leakage

A majority in all segments are happy with United Utilities' proposed level, but a significant number would like to see a higher level of leakage reduction.

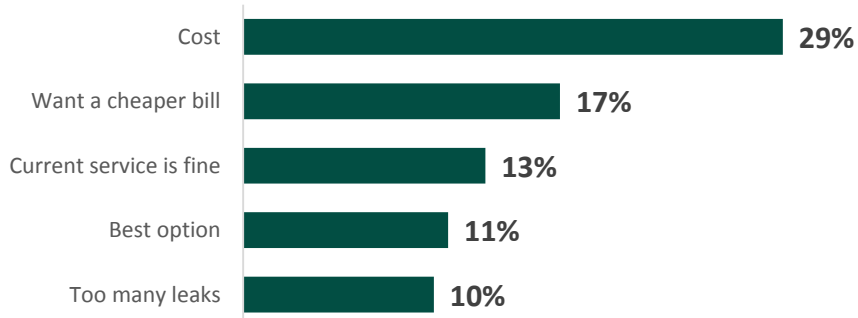


Leakage: reasons for choice

Respondents who deviated from UU's proposed level for leakage (higher level)



Respondents who deviated from UU's proposed level for leakage (lower level)



Qualitative findings

Those who go for a higher level of leakage reduction tend to be driven by a dislike of waste and feel that the bill increase is reasonable to achieve this.

"I hate wastage in general, so I'm stuck between that and the bill increasing. But this is something that needs to be tackled and 35% is enough."

"It's quite a large jump in price to reduce leakage reduction by more."

In contrast, others feel that UU's proposed 25% leakage reduction target is reasonable, as the bill increase to achieve higher levels is not worth it.

Meanwhile, some feel that a small increase from the current level to 20% leakage reduction provides the best value for money.

"Leak reduction is not too bad as it is, so I've just put it up one level [from current level] . There won't be much of a difference going higher."

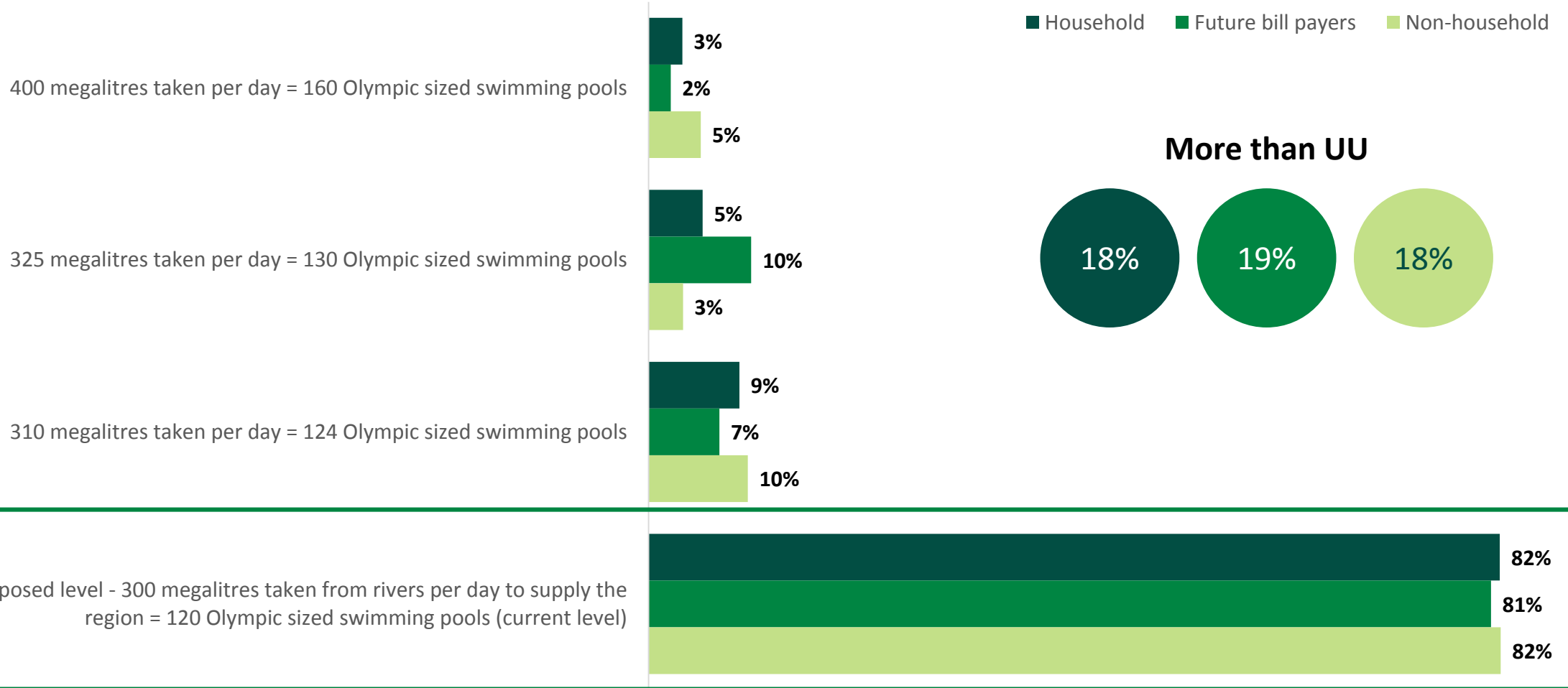
Q06D2. Leakage: What made you move the slider away from United Utilities' proposed level of service? Top 5 reasons shown. Base 204 (higher level) / 67 (lower level)

Please note: respondents who deviated from the proposed level had a 4 in 7 chance of being asked the follow-up open.

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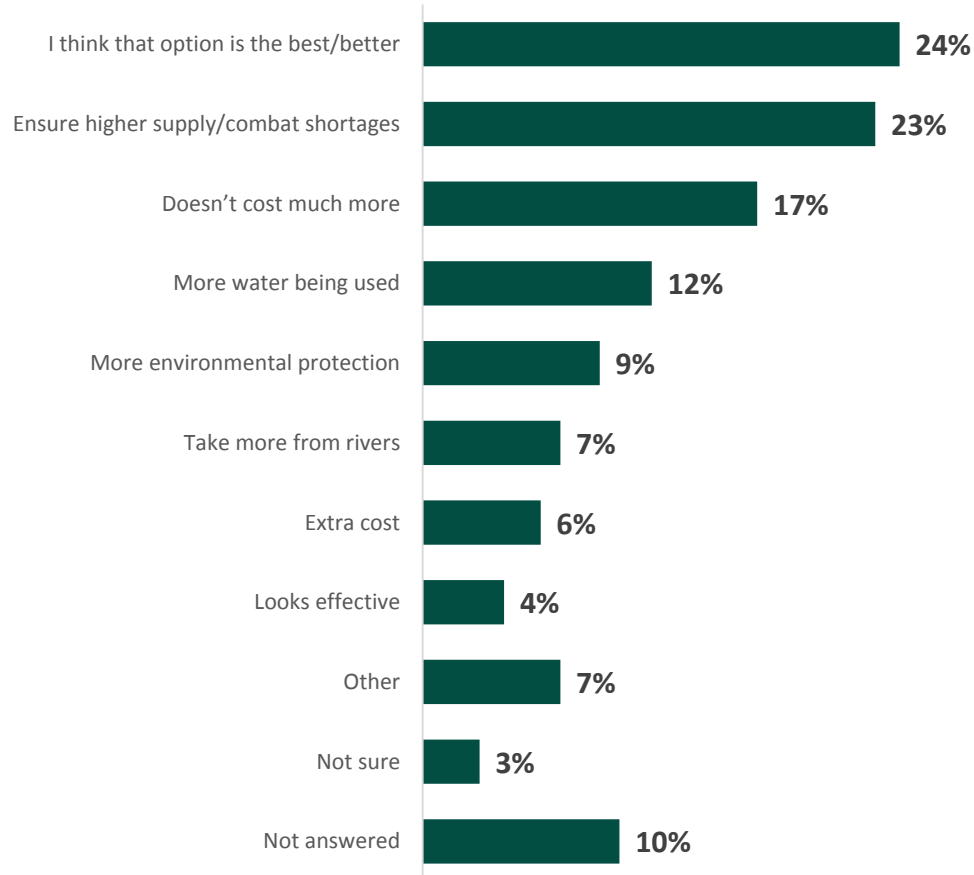
Taking water from rivers

More than four in five customers are happy with United Utilities' proposed level.



Taking water from rivers: reasons for choice

Respondents who deviated from UU's proposed level for taking water from rivers



Qualitative findings

"I don't want to go with one [300MI/d] because you're going to need more water. It's alright meeting demand, but suppose there's more emergencies than normal. You'll need extra supply so I'll go with option three.."

The impacts of the top level are seen as too extreme by many, but a minority do prefer option three (325 MI/d) to generate extra supply and create a greater buffer with demand.

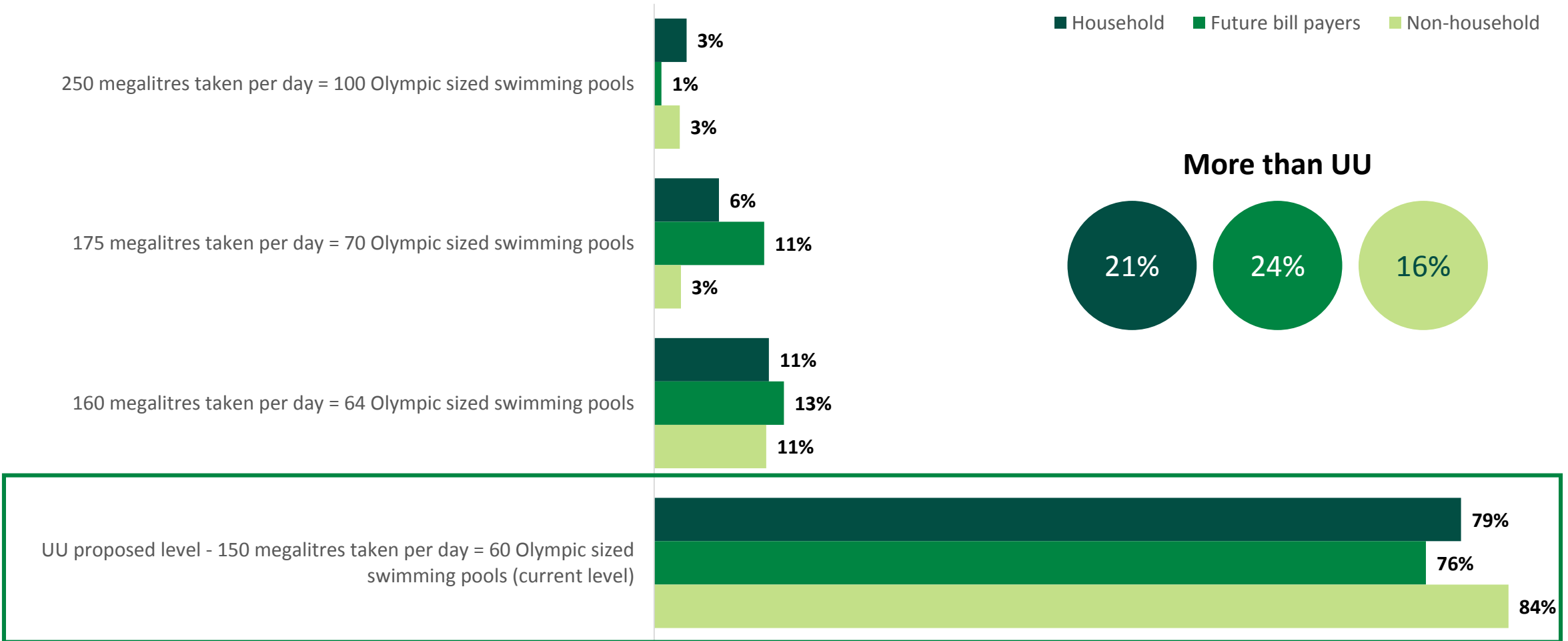
The vast majority are content with United Utilities' proposed level. Many are instinctively uncomfortable with taking any water from rivers, as they worry about the impact that it has on river levels and wildlife.

"I think that's enough to take from the rivers. If you get hot weather the rivers already dry up. Any more will impact wildlife and it's not just the creatures that live in the water but also the creatures that depend on the water."

Q06E2. Taking water from rivers: What made you move the slider away from United Utilities' proposed level of service? Base 87
Please note: respondents who deviated from the proposed level had a 4 in 7 chance of being asked the follow-up open.
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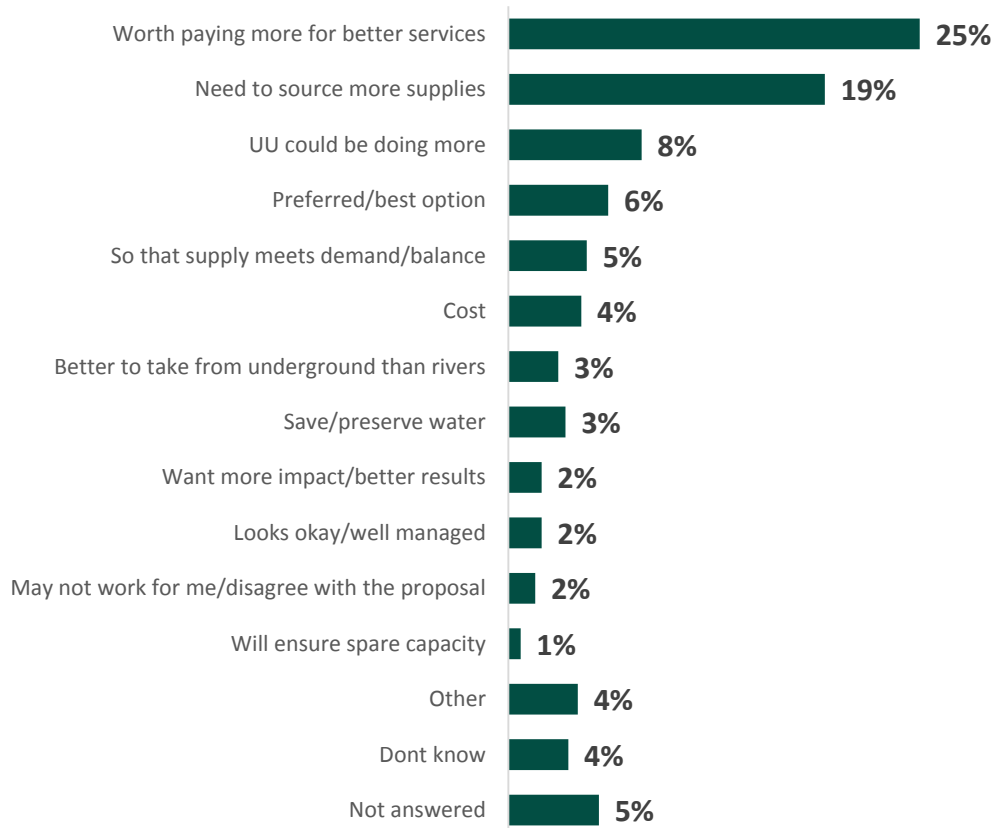
Taking water from underground

Only a minority want United Utilities to take more water from the underground, with the vast majority satisfied with the status quo.



Taking water from underground: reasons for choice

Respondents who deviated from UU's proposed level for taking water from underground



Qualitative findings

“Number 2 will creep supply above demand... it’s not a huge cost increase.”

A minority opted for a higher level of service. This was either to ensure that supply was above demand after their previous choices caused a deficit or to create a greater supply surplus.

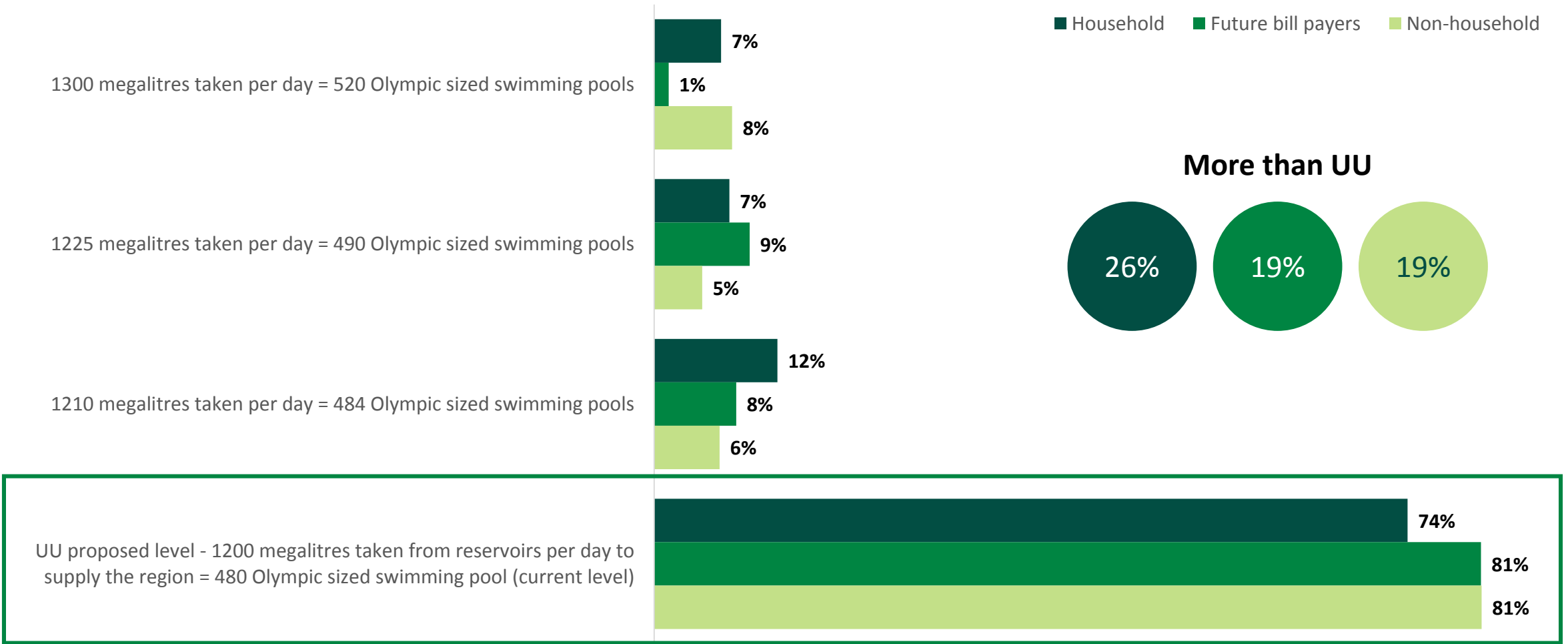
The vast majority are content with United Utilities’ proposed level. Many did not see the need to take more, considering their plans already balanced supply and demand, while others were deterred by environmental & social / carbon impact.

“Keeping at the current level means that bills won’t go up too much, and the supply of water is already higher than demand, as well as the environmental benefits.”

Q06F2. Taking water from underground: What made you move the slider away from United Utilities’ proposed level of service? Base 106
Please note: respondents who deviated from the proposed level had a 4 in 7 chance of being asked the follow-up open.
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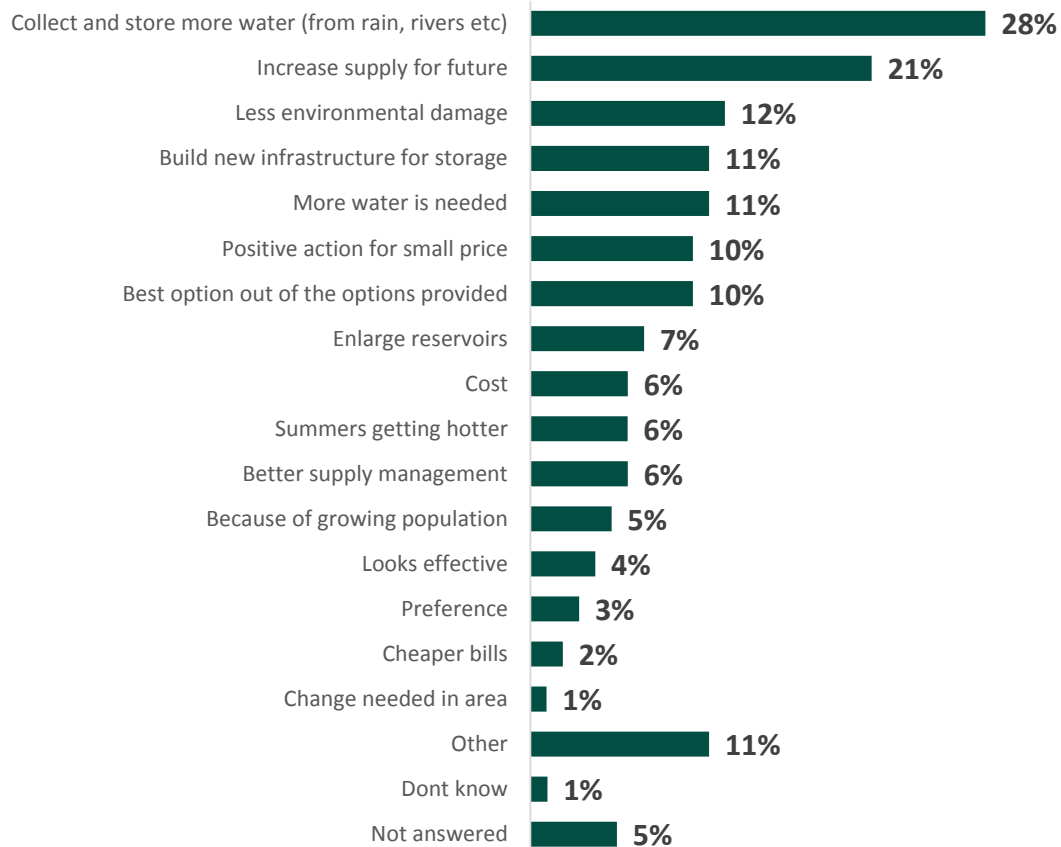
Taking water from reservoirs

Three in four household customers and are happy with United Utilities' proposed level, rising to four in five among future bill payers and non-household customers.



Taking water from reservoirs: reasons for choice

Respondents who deviated from UU's proposed level for taking water from reservoirs



Qualitative findings

"[More reservoirs] is something we need to put a plan in place for and would definitely improve matters a lot."

Only a minority are in favour of taking more water from reservoirs. These customers feel that its important to invest in reservoirs to maintain a reliable supply of water in future.

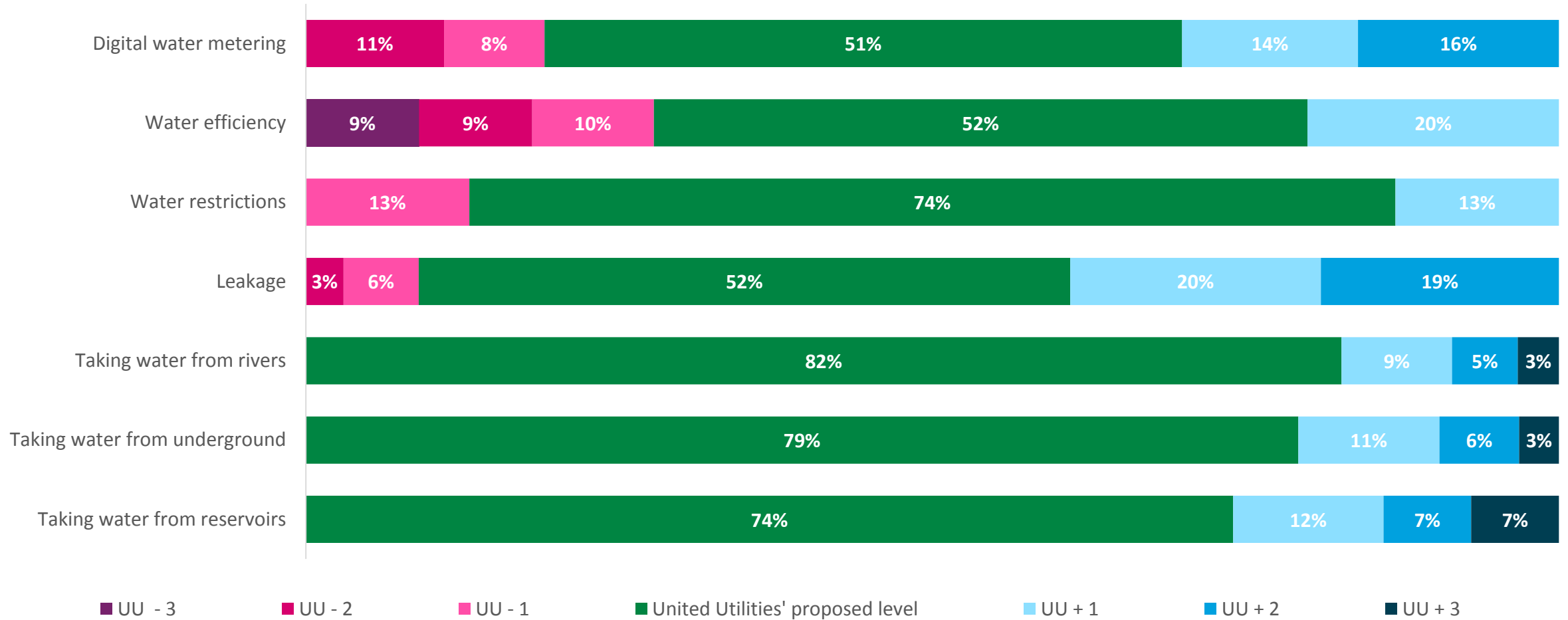
The vast majority are content with United Utilities' proposed level, with customers seeing no need to change things, especially given the higher environmental and social costs associated with the higher options.

"The lower option seems to have more environmental benefit and it doesn't make logical sense to change if the current system is working."

Q06G2. Taking water from reservoirs: What made you move the slider away from United Utilities' proposed level of service? Base 112
Please note: respondents who deviated from the proposed level had a 4 in 7 chance of being asked the follow-up open.
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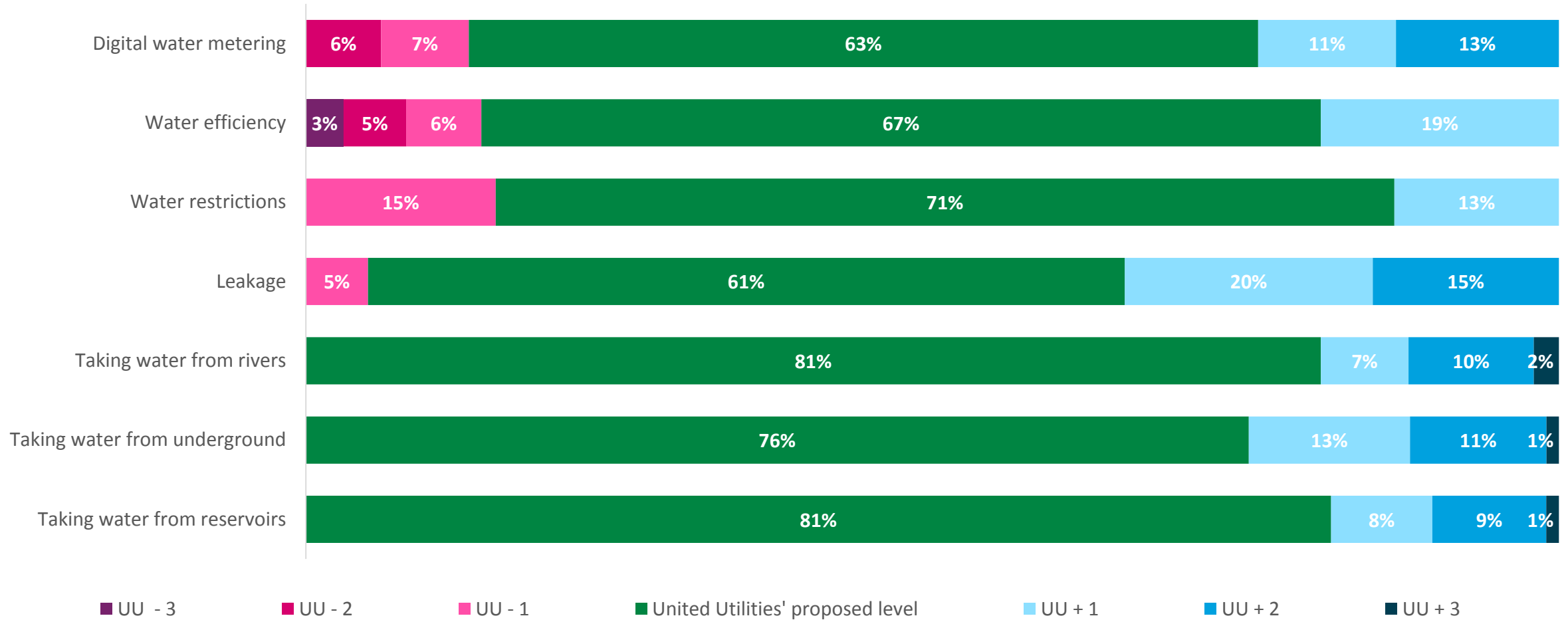
Overview of final customer preferences

A majority of customers opt for United Utilities' proposed level in each of the seven areas.



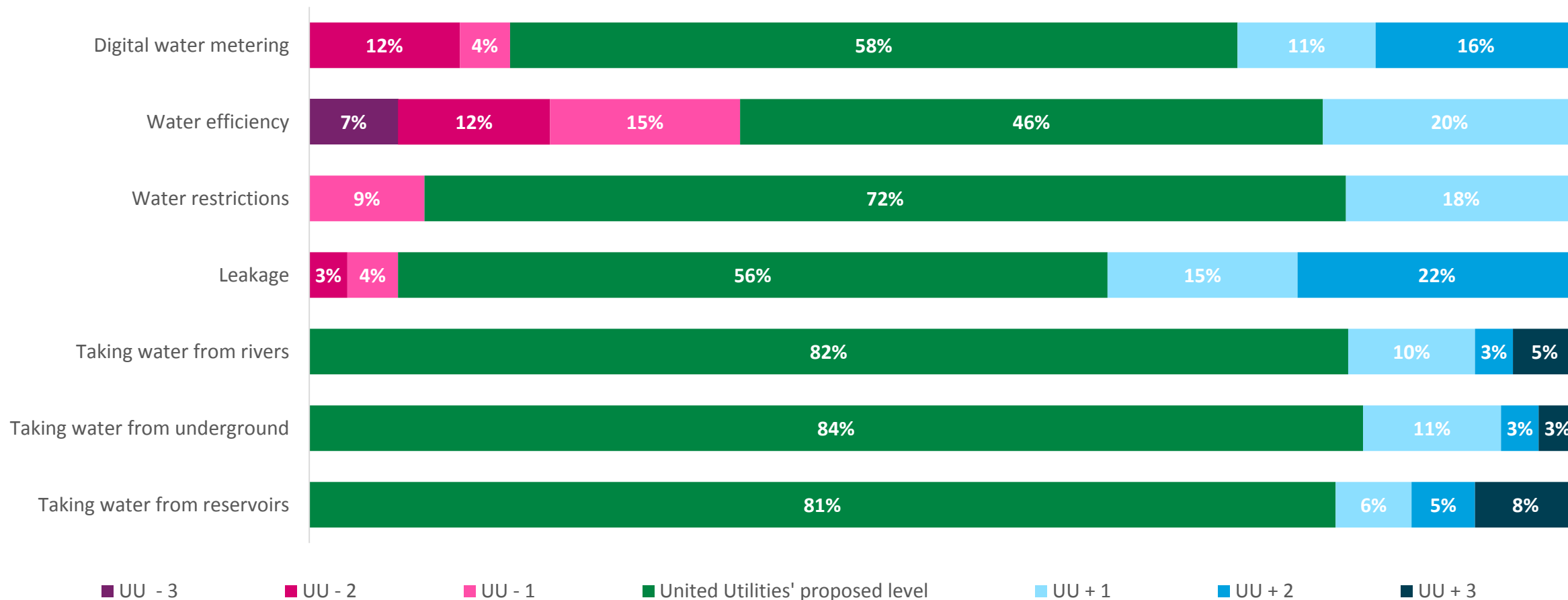
Overview of final customer preferences

A majority of future bill payers opt for United Utilities' proposed level in each of the seven areas.



Overview of final customer preferences

A majority of customers opt for United Utilities' proposed level for six of the seven areas.



Adherence with United Utilities' proposed levels of service

Agree with United Utilities' proposed level across all seven attributes.

Deviate from United Utilities' proposed level on at least one attribute

Household

23%

77%

Future bill payers

38%

62%

Non-household

25%

75%

The overall agree figure does not represent the level of plan acceptability for the various segments (this will be explored in the next section using advanced statistical analysis). Instead, these figures are an overview of the choices respondents made, and the level of deviation is a testament to respondent engagement with the exercise. The high deviation score illustrates how respondents did not just go along with United Utilities' proposed level for every area and were proactive in crafting the plan that they thought was best.

The main reasons given for agreeing with United Utilities' plan is a sense that it is the best response, that it is cost effective, that it is good for the environment or a feeling of trust in United Utilities.

There are a mix of reasons given for deviating from United Utilities' plan, representing the diversity of respondent preferences. Some are motivated by lower costs, others want a plan which does more for the environment, or creates a bigger buffer between supply and demand.

SIMALTO analysis

SIMALTO: the optimum plan

So far we have seen an overview of customers' selections for each of the attributes and the reasons why. However, in total there are 22,030 valid combinations of bundles and different priorities for different customers. Some want to save money by picking lower levels, others want a higher level of service regardless of the cost, while many are happy with United Utilities' proposed plan or something similar.

To distil this data and establish the 'best' package, a SIMALTO (simultaneous multi-attribute trade off) analysis models the optimum mix of service levels for the seven attributes which maximises plan preference score. It does this by taking all of the information about the plans the respondents designed (% choosing each level, bill amount, carbon footprint etc.) and analyses the data to discern how preferable each valid plan is for each respondent. It then aggregates this to give an overall plan preference score.

The model is able to do this because the fact a respondent chose a specific plan does not mean all other plans are equally un-preferable. An alternative plan that is very similar to a respondent's chosen plan is also likely to be highly preferable to that respondent (even if it is not their ideal).



Simulated plan preference score

Simulated preference score for **United Utilities' proposed plan**

63.0%



65.6%

Simulated preference score for **'best' plan**

<p>The simulated preference score for United Utilities' proposed plan is higher than the actual percentage who chose United Utilities' preferred level for all seven attributes (23%) because the simulation accounts for the likelihood that the proposed plan would also be acceptable to customers who only made slight adjustments.</p>	<p>The 'best' plan is defined as the plan which generates the highest preference score. <u>The fact that the best plan only generates an additional 2.6% points in terms of preference score indicates that the plan proposed by United Utilities is already close to optimal customer acceptance. The change in preference score is not significant.</u></p>
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This increase in acceptance could be achieved by making the following adjustments to the plan....

	UU-3	UU-2	UU-1	UU proposed level	UU+1	UU+2	UU+3
Digital water metering		15% of customers by 2030	20% of customers by 2030	25% of customers by 2030	30% of customers by 2030	35% of customers by 2030	
Water efficiency	Maintain current activity	Current activity plus wider promotion of free water saving devices for metered customers	Below plus free home audits for metered customers	Below plus subsidised water butts for metered customers	All of the below plus rainwater harvesting and water reuse systems installed in new builds +0.2		
Temporary use bans			23% chance over a five-year period (United Utilities' current level)	UU proposed level (in line with neighbouring water companies)		5% chance over a five-year period (equal to best performing water company in the country)	
Leakage		Maintain current activity	20% reduction by 2030	25% reduction by 2030	30% reduction by 2030 +2.4	35% reduction by 2030	
Taking water from rivers				300 MI/d		310 MI/d	325 MI/d
Taking water from underground				150 MI/d	160 MI/d	175 MI/d	250 MI/d
Taking water from reservoirs				1200 MI/d	1210 MI/d	1225 MI/d	1300 MI/d

Annual bill impact: £20.39

Supply/demand surplus: +50MI/d

Carbon footprint: Low

Environmental & social cost: Low

Simulated acceptance of plans: subgroups (I)

The highest preference share gain is for the least vulnerable, who desire a higher level of service for three of the areas. However, none of these increases in preference share are statistically significant. United Utilities' proposed plan is optimal for the potentially vulnerable.

	CC Water definitions			UU definitions			
	Metered	Unmetered	Most vulnerable	Potential vulnerable	Least vulnerable	Not vulnerable	Financially Vulnerable
Chose UU Proposed plan	57.4%	67.6%	78.4%	62.1%	53.9%	55.8%	76.0%
Chose 'best' plan	59.5%	70.3%	78.5%	62.1%	58.8%	60.0%	77.0%
Preference share gained (% point difference)	+2.1	+2.7	+0.2	0.0	+4.9	+4.2	+1.0
Digital water metering	UU+2 (+2.1)	UU proposed level	UU proposed level	UU proposed level	UU+1 (+0.5)	UU+1 (+0.4)	UU proposed level
Water efficiency	UU proposed level	UU+1 (+0.2)	UU+1 (+0.2)	UU proposed level	UU+1 (+0.7)	UU+1 (+0.8)	UU proposed level
Temporary use ban	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Leakage	UU proposed level	UU+1 (+2.5)	UU proposed level	UU proposed level	UU+1 (+3.7)	UU+1 (+3.0)	UU+1 (+1.0)
Taking water from rivers	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water from underground	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water form reservoirs	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level

Simulated acceptance of plans: subgroups (II)

The biggest potential preference share gains are in Cumbria and Greater Manchester but none of the changes are not statistically significant. The bulk of the potential preference share gain for all of these subgroups comes from going up a level for fixing leaks.

	Cumbria	Merseyside	Greater Manchester	Lancashire	Cheshire	Inner-city	Suburban	Town	Village/rural
Chose UU Proposed plan	64.1%	54.8%	61.8%	69.8%	60.6%	67.8%	60.4%	61.0%	69.8%
Chose 'best' plan	67.9%	56.4%	65.1%	72.9%	61.7%	67.8%	63.5%	61.7%	72.0%
Preference share gained (% point difference)	+3.8	+1.6	+3.4	+3.2	+1.1	+0	+3.1	+0.7	+2.2
Digital water metering	UU proposed level	UU proposed level	UU+1 (+0.8)	UU+1 (+0.3)	UU proposed level	UU proposed level	UU proposed level	UU+1 (+0.7)	UU proposed level
Water efficiency	UU+1 (+0.2)	UU proposed level	UU proposed level	UU proposed level	UU+1 (+1.1)	UU proposed level	UU+1 (+0.2)	UU proposed level	UU+1 (+0.2)
Temporary use ban	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Leakage	UU+1 (+3.6)	UU+1 (+1.6)	UU+1 (+2.6)	UU+1 (+2.9)	UU proposed level	UU proposed level	UU+1 (+2.9)	UU proposed level	UU+1 (+2.0)
Taking water from rivers	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water from underground	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water form reservoirs	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level

Simulated acceptance of plans: subgroups (III)

The 'best' plan for under 35s is United Utilities'. The preference share could be raised for 35-54 year olds through a higher level for digital water metering, while a higher level of leakage reduction is the main thing for older age groups. These differences are not significant.

	Under 35	35-54	55-64	65+
Chose UU Proposed plan	70.0%	64.1%	59.6%	59.6%
Chose 'best' plan	70.0%	64.5%	62.9%	63.1%
Preference share gained (% point difference)	+0	+0.4	+3.4	+3.5
Digital water metering	UU proposed level	UU+1 (+0.4)	UU proposed level	UU+1 (+0.2)
Water efficiency	UU proposed level	UU proposed level	UU+1 (+0.5)	UU+1 (+0.8)
Temporary use ban	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Leakage	UU proposed level	UU proposed level	UU+1 (+2.9)	UU+1 (+2.5)
Taking water from rivers	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water from underground	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water form reservoirs	UU proposed level	UU proposed level	UU proposed level	UU proposed level

Simulated acceptance of plans: subgroups (IV)

The optimal preference share for families, C2DEs and females is achieved through United Utilities' proposed plan. No preference share changes are statistically significant.

	Single person	Couple	Other adult household	Family	ABC1	C2DE	Male	Female
Chose UU Proposed plan	67.2%	57.6%	61.2%	68.4%	55.2%	67.9%	61.3%	64.6%
Chose 'best' plan	69.0%	60.9%	62.4%	68.4%	59.8%	67.9%	65.2%	64.6%
Preference share gained (% point difference)	+1.8	+3.3	+1.2	0.0	+4.6	+0	+3.8	0.0
Digital water metering	UU proposed level	UU proposed level	UU+1 (+0.4)	UU proposed level	UU+1 (+0.7)	UU proposed level	UU+1 (+0.3)	UU proposed level
Water efficiency	UU proposed level	UU+1 (+0.4)	UU+1 (+0.8)	UU proposed level	UU+1 (+0.8)	UU proposed level	UU+1 (+0.6)	UU proposed level
Temporary use ban	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Leakage	UU+1 (+1.8)	UU+1 (+2.9)	UU proposed level	UU proposed level	UU+1 (+3.1)	UU proposed level	UU+1 (+2.9)	UU proposed level
Taking water from rivers	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water from underground	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water form reservoirs	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level	UU proposed level

Simulated plan preference score

Simulated preference score for **United Utilities' proposed plan**

80.9%



80.9%

Simulated preference score for **'best' plan**

<p>The simulated acceptance for United Utilities' proposed plan is higher than the actual percentage who chose United Utilities' preferred level for all seven attributes (38%) because the simulation accounts for the likelihood that the proposed plan would also be acceptable to customers who only made slight adjustments.</p>	<p>The 'best' plan is defined as the plan which generates the highest preference score. <u>There is no change in the preference score because United Utilities' proposed plan is also the 'best' plan.</u></p>
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For future bill payers, United Utilities' proposed plan maximises the preference score.

	UU-3	UU-2	UU-1	UU proposed level	UU+1	UU+2	UU+3
Digital water metering		15% of customers by 2030	20% of customers by 2030	25% of customers by 2030	30% of customers by 2030	35% of customers by 2030	
Water efficiency	Maintain current activity	Current activity plus wider promotion of free water saving devices for metered customers	Below plus free home audits for metered customers	Below plus subsidised water butts for metered customers	All of the below plus rainwater harvesting and water reuse systems installed in new builds		
Temporary use bans			23% chance over a five-year period (United Utilities' current level)	UU proposed level (in line with neighbouring water companies)	5% chance over a five-year period (equal to best performing water company in the country)		
Leakage		Maintain current activity	20% reduction by 2030	25% reduction by 2030	30% reduction by 2030	35% reduction by 2030	
Taking water from rivers				300 MI/d	310 MI/d	325 MI/d	400 MI/d
Taking water from underground				150 MI/d	160 MI/d	175 MI/d	250 MI/d
Taking water from reservoirs				1200 MI/d	1210 MI/d	1225 MI/d	1300 MI/d

Annual bill impact: £12.67

Supply/demand surplus: +23MI/d

Carbon footprint: Low

Environmental & social cost: Low

Simulated plan preference score

Simulated preference score for **United Utilities' proposed plan**

67.5%



68.1%

Simulated preference score for **'best' plan**

The simulated preference score for United Utilities' proposed plan is higher than the actual percentage who chose United Utilities' preferred level for all seven attributes (25%) because the simulation accounts for the likelihood that the proposed plan would also be acceptable to customers who only made slight adjustments.

The 'best' plan is defined as the plan which generates the highest preference score. The potential gain is only minor (+0.6) indicating that United Utilities' existing plan does a good job of maximising non-household customer preferences. The increase in preference score is not statistically significant.

This increase in acceptance could be achieved by making the following adjustments to the plan....

	UU-3	UU-2	UU-1	UU proposed level	UU+1	UU+2	UU+3
Digital water metering		15% of customers by 2030	20% of customers by 2030	25% of customers by 2030	30% of customers by 2030	35% of customers by 2030	
Water efficiency	Maintain current activity	Current activity plus wider promotion of free water saving devices for metered customers	Below plus free home audits for metered customers	Below plus subsidised water butts for metered customers	All of the below plus rainwater harvesting and water reuse systems installed in new builds		
Temporary use bans			23% chance over a five-year period (United Utilities' current level)	UU proposed level (in line with neighbouring water companies)	5% chance over a five-year period (equal to best performing water company in the country)		
Leakage		Maintain current activity	20% reduction by 2030	25% reduction by 2030	30% reduction by 2030	35% reduction by 2030	
Taking water from rivers				300 MI/d	310 MI/d	325 MI/d	400 MI/d
Taking water from underground				150 MI/d	160 MI/d	175 MI/d	250 MI/d
Taking water from reservoirs				1200 MI/d	1210 MI/d	1225 MI/d	1300 MI/d

Annual bill impact: **4.04%**

Supply/demand surplus: **+28MI/d**

Carbon footprint: **Low**

Environmental & social cost: **Low**

Simulated acceptance of plans: subgroups

Large businesses have the highest preference share gained from United Utilities' proposed plan to the simulated 'best' plans (11.2% points). The gain for small and micro businesses is much smaller, while the best plan for medium businesses is United Utilities' proposed plan. However, none of these changes are statistically significant.

	Micro (0-9)	Small (10-49)	Medium (50-249)	Large (250+)
Chose UU Proposed plan	69.0%	67.3%	56.1%	48.3%
Chose 'best' plan	70.1%	71.1%	56.1%	59.5%
Preference share gained (% point difference)	+1.1	+3.8	0.0	11.2%
Digital water metering	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Water efficiency	UU+1 (+1.1)	UU proposed level	UU proposed level	UU+1 (+4.9)
Temporary use ban	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Leakage	UU proposed level	UU+1 (+3.8)	UU proposed level	UU proposed level
Taking water from rivers	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water from underground	UU proposed level	UU proposed level	UU proposed level	UU proposed level
Taking water form reservoirs	UU proposed level	UU proposed level	UU proposed level	UU+1 (+6.3)

Annual willingness to pay (I)

Willingness to pay ranges in the displayed subgroups ranges from £19.56-£26.09, with the average willingness to pay being £23.05. The least vulnerable group and couples have the highest willingness to pay, whereas vulnerable groups and those on Merseyside tend towards lower amounts.

UU plan bill impact: £12.67

While it may seem strange that willingness to pay is so high given the current cost of living crisis, during the depth interviews many (but not all) customers explained that on a monthly basis the bill increases are fairly insignificant, especially when compared to the predicted increases in energy bills. For context, United Utilities' plan would add around £1.05 per month to customers bills and even upping the service level for one or two areas usually leaves the bill increase at below £2 per month.



Annual willingness to pay (II)

UU plan bill impact: £12.67

While it may seem strange that willingness to pay is so high given the current cost of living crisis, during the depth interviews many (but not all) customers explained that on a monthly basis the bill increases are fairly insignificant, especially when compared to the predicted increases in energy bills. For context, United Utilities' plan would add around £1.05 per month to customers bills and even upping the service level for one or two areas usually leaves the bill increase at below £2 per month.



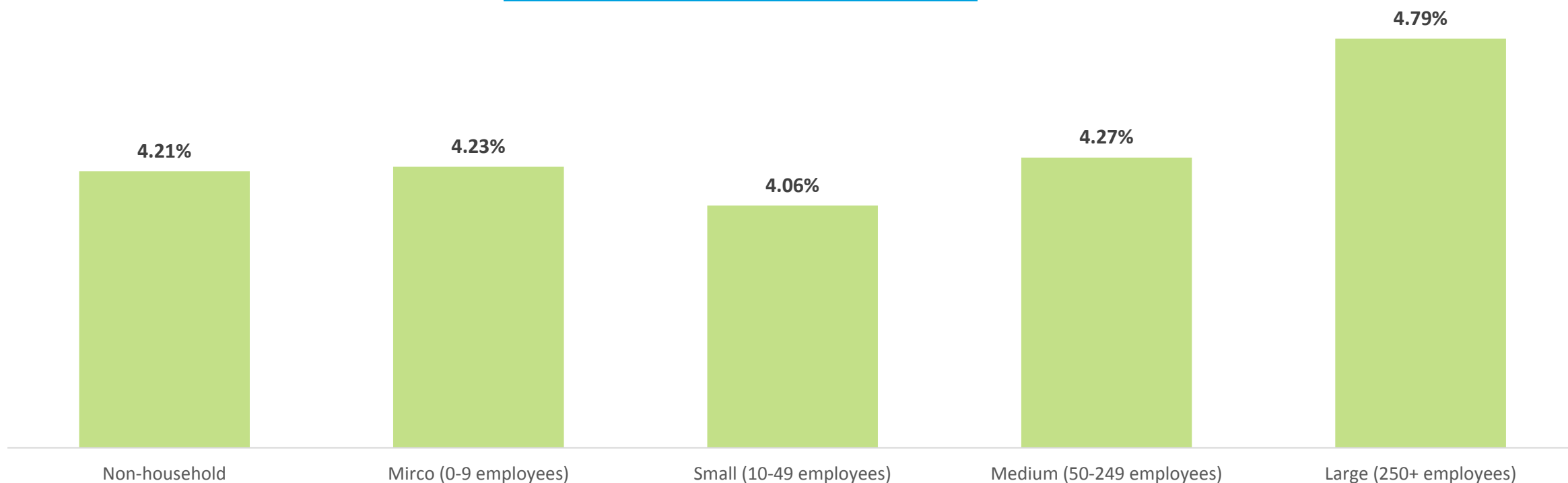
WtP amounts based on average customer annual bill. [For details on how vulnerable groups are defined, please see the appendix.](#)
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***Further acceptability testing and WTP will be completed on the whole business plan in 2023**

Willingness to pay

The willingness to pay of micro, small and medium businesses is similar to the overall business figure, with the main variance coming from large employers where willingness to pay is 0.58% points higher.

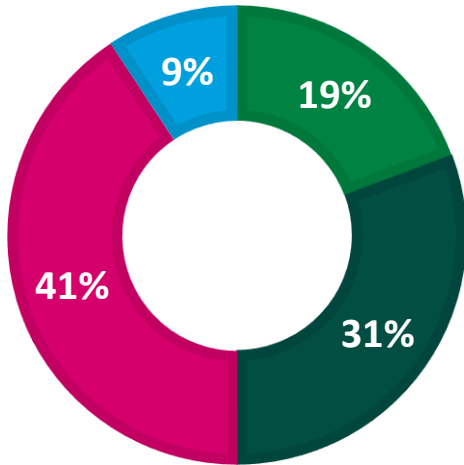
UU plan bill impact: 3.00%



Importance of impacts & willingness to pay summary

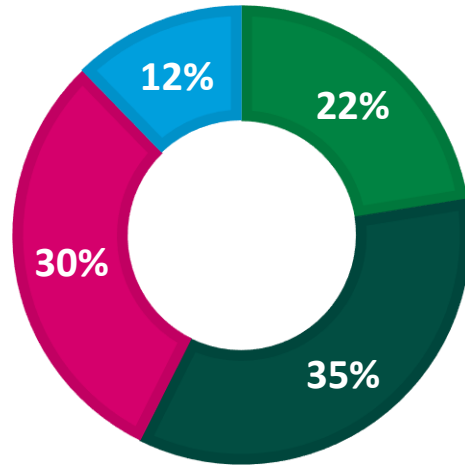
Using SIMALTO, we can assess the relative importance each impact has on respondent choice. Interestingly, bill increase is only the most important for household customers, with future bill payers and non-household prioritising the environment more.

Household



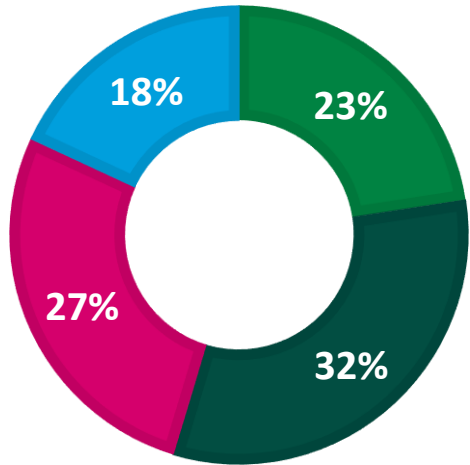
WtP: £23.05

Future bill payers



WtP: £19.45

Non-household



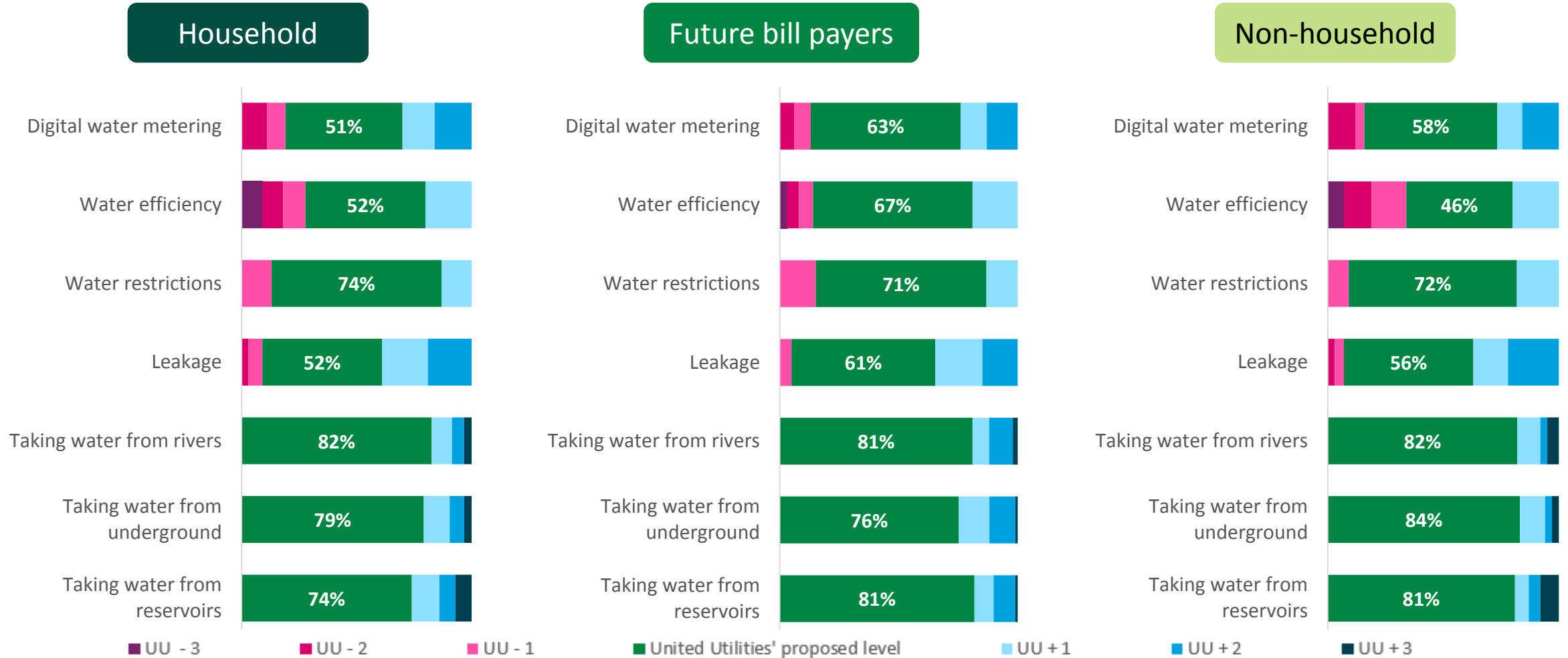
WtP: 4.21%

- Carbon footprint
- Environment
- Bill increase
- Supply/demand surplus

Key findings

Key findings (I)

UU's proposed level is the most popular choice for each area in all segments.



Key findings (II)

Preference scores for United Utilities' proposed plan are strong across all three segments.

Household
63.0%

Future bill payers
80.9%

Non-household
67.5%

There is limited scope to improve the preference score through tweaking the plan, meaning that United Utilities' plan is already highly optimised in terms of maximising customer (and future bill payers) preferences.

The preference score for the 'best' plan is 65.6% (+2.6% points), and this increase is mainly driven through upping leakage reduction by one level(+2.4% points). However, this increase in preference score is not statistically significant.

For future bill payers, the 'best' plan is the United Utilities' plan, meaning that the preference score cannot be increased by changing the plan.

For non-household customers, the preference score is can only be increased slightly to 68.1% through the 'best' plan. This 0.6% point gain could be achieved through a higher water efficiency level. Again, this change is not statistically significant.

Ofwat standards for high-quality research

Ofwat have set out requirements for High Quality Research in their [Customer Engagement Policy](#). All water company research and engagement should follow best practice and lead to a meaningful understanding of what is important to customers and wider stakeholders.

Useful and contextualised

This research was conducted in order to test United Utilities' WRMP with customers and future bill payers and assess whether tweaks need to be made ahead of the final plan's submission.

Fit for purpose

This research used online interviews to understand customer acceptability of the plan, using sliders to propose various service levels and bill impacts. Further cognitive testing was carried out during the design phase of this research to ensure the complex subject matter was presented in a way which was as understandable and engaging as possible for respondents. Visual stimulus was created in order to aid participant understanding, using images and sliders to portray the various plan options.

Ethical

This research was conducted by DJS Research who are a member of the Market Research Society. Participants were regularly reminded that they could be open and honest in their views due to anonymity and DJS and United Utilities were subject to strict data protection protocols.

Continual

The customer acceptability outputs from this research were directly fed into the final plan submission for the WRMP.

Neutrally designed

Every effort has been made to ensure that the research is neutral and free from bias. Where there is the potential for bias, this has been acknowledged in the report, for example the heat wave factor. Participants were encouraged to give their open and honest views and reassurances were given throughout the research that United Utilities were open to hearing their honest opinions and experiences

Inclusive

A mix of online and face-to-face interviews were conducted to ensure that digitally vulnerable and hard-to-reach customers were included in the research. Quotas were set based on the known profile of United Utilities' customers and weighted to mitigate variations in the sample population.

Shared in full with others

The full final report and research materials will be shared on the United Utilities' research library webpage.

Independently assured

All research was conducted by DJS, an independent market research agency. United Utilities collaborated with Your Voice, the Independent Challenge Group, who reviewed all research materials and provided a check and challenge approach on the method and findings

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