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The voice for water consumers
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Navigator
View things differently

Smart metering journeys

June 2026

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Background and methodology

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Background

In a context of water stress, water smart meters are key to plans to reduce demand, manage water more flexibly, and identify leakage on customer properties.

Water companies in England and Wales are moving forward at pace and scale to achieve around 48% smart metering of households by 2030. Currently c. 60% households in England are metered, but only 14% of those have smart meters.

While to date, metering has only been potentially compulsory in water stressed areas, the Cunliffe Report now calls on the sector to "accelerate efforts to reduce household water consumption by introducing compulsory smart metering for a wider range of circumstances".

CCW wants a better understanding of how smart metering can be delivered with a true consumer focus. CCW commissioned Blue Marble Research (now Navigator Insight) to explore how water companies can better support customers on their journey of smart meter installation and living with a smart meter.

Ofwat, Smart Metering Report 2024; Independent Water Commission;

Objectives

This research seeks insight from household customers on:

1. **Awareness** and **attitudes** towards the water smart meter roll out and its context.
2. **Ideal journey, based on experiences** and **expectations** of the journey to smart metering:
    - Installation process (notice, processes, information and support needs)
    - Wider information and support needs (billing, supply pipe responsibility)
3. Experiences and expectations of **engagement with smart meter data**, incentivisation and gamification, as part of **changing water use behaviours.**
    - To include a high level exploration of customer views on the use of variable tariffs.

Methodology overview: qualitative stage

Qualitative stage: 54 customers		
Fieldwork dates: 9 February – 10 March 2026		
Household customers	Household customers in need of extra help	
Diverse demographics	‘Vulnerable’ circumstances	Digitally disadvantaged
Sample total = 36	Sample total = 12	Sample total = 6
On boarding & baseline survey	On boarding & baseline survey	
Event 1 1.5 hours Online 6 per group	Mini Group 1 1.5 hours Online 4 per group	In-person interview 1.5 hours In person
Online community 1-week platform activities	Online community 1-week platform activities	
Event 2 1.5 hours Online 6 per group	Mini Group 2 1.5 hours Online 4 per group	Telephone interview & feedback 30 mins
Survey & Feedback	Survey & Feedback	

Areas of focus

Engage customers from a spread of different water companies and locations, across England and Wales, in order to:

- Understand **views on smart metering** of customers with different current and previous metering types (these are hypothesised to drive attitudes).
- Learn from the **experiences** of those with smart meters
    - including any differences between those with access to their usage data (fully smart), and those without (smart capable).
- Understand the **needs** of those who would experience greater changes i.e. currently unmetered.
- Gain insight into **characteristics and attitudes which may be driving views**
    - E.g. high/low usage, vulnerability, digital disadvantage, financial comfort, environmental attitudes.

Methodology overview: quantitative stage

Quantitative stage: 2153 consumers	
Fieldwork dates: 23 February – 12 March 2026	
Via online survey	Via CATI
n= 2103 Adults in England and Wales. Includes bill-payers, non-bill-payers, and future customers	n=50 Adults in England and Wales who are digitally disadvantaged and/or have additional needs making an online survey unsuitable

Represents quantitative survey data in this report. Survey respondents are referred to as 'consumers' throughout this report.

See appendices for quantitative sample detail.

Areas of focus:

Gauge wider public:

- Awareness and attitudes
- Communications preferences
- Sentiment toward variable tariffs.

Qualitative segments were organised by metering status

Smart metered customers

Fully smart	Smart Capable

- X 12 previously metered customers
- X 12 previously unmetered customers
- X 8 vulnerable customers (mix prev. status)

Unmetered

- x6 unmetered customers
- x4 vulnerable customers

Metered

- x6 metered customers

Digital disadvantage

- x6 customers with mixed metering status

Issues identifying metering type

- Without company sample, we relied on customers to self-identify their metering status.
- However, many were unsure about this, particularly whether the meter was smart and whether they had access to real time data (fully smart).
- The unmetered audience also had more customers from Wales (where smart metering is more nascent).

See appendices for qualitative sample detail.

Factors other than metering status driving views are represented with the following icons:

- Real-time data access
- Environment ally conscious
- Water sector sceptics
- Cost conscious

Quantitative: environmental typologies

Blue Marble has developed a simple segmentation using both qualitative and quantitative research, exploring the intersection between financial wellbeing and environmental connection.

This segmentation was used in the quantitative survey, to segment consumers into one of four categories. The proportion of the sample within each segment is shown in the figure to the right.

Differences between these segments have been called out throughout this report where relevant.

See the appendices for more information.

Financially managing

Environmentally detached

Environmentally connected

Financially struggling

Detached and managing (22%)

Financially well-off, with some bills impacting their lives. However, they prioritise self-sufficiency over environmental concerns.

Connected and managing (34%)

A more affluent group, with higher levels of concern for the environment. More likely to make environmentally-minded purchases.

Detached and cost-sensitive (21%)

Lower levels of financial security and as such are more cost-sensitive. Are less driven by environmental values and prioritise the essentials.

Connected and cost-sensitive (23%)

More likely to be struggling with the cost-of-living, but also have high concerns about the environment. Will try to make trade-offs where possible to minimise environmental impact, but on a budget.

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Key findings

Awareness and understanding

Many household customers have not heard of water smart meters, or their rollout at scale

- Many metered customers do not know what kind of meter they have, including those on smart capable/smart meters.
- Customers can understand water smart meters' key features based on an understanding of energy smart meters. This means that there is a risk that if companies don't describe them as 'smart', customers will not understand what meter they have or its potential functionality.
- This in turn reduces their likelihood to access data and change water use behaviours.

Most customers have qualms about compulsory smart metering

- Customers believe the rollout to be about consistent/accurate charging, and this appeals to already metered (of any type) as fair. However, even those already on smart meters are hesitant about taking away customer choice.
- However, leak identification lands well with all customers as a justification for smart metering.

Customer attitudes to water smart meters are linked to experiences and expectations of bill impact

- Customers are surprised to learn about water stress, but it does not alter their sentiment towards the lack of customer choice (and therefore towards the rollout in general).
- For unmetered audiences, distrust in water companies exacerbates fears of bill increases and concern over company motivation.
- Digitally disadvantaged audiences are also likely to fear bill increase and want support with the switch.

Installation and billing

A communications opportunity is being missed with smart meter rollouts, with consequences for water use behaviour change

- A majority experience low disruption during installation and value this, but this is driven by low awareness of installation and the smart functionality – further reducing likely engagement.
- Customers who recall communications about the rollout are more likely to support it.
- For an ideal journey, customers want to see companies raise greater awareness of the rollout and provide more information.

Customers want support with smart meter billing to be proactive and targeted

- Customers identify audiences in need of support, with potentially intersecting characteristics, compounding possible disadvantage and support needs:
  - health and financially vulnerable,
  - high users who cannot reduce use for reasons related to vulnerability or family size,
  - currently unmetered and,
  - digitally disadvantaged.

Customers want support to counter the potential for bill shock from leaks or high usage

- Customers identify installation as a key moment to educate about supply pipe responsibility and resolving leaks.
- Customers worry smoothed billing (through direct debits) and lack of real-time data could result in bill shocks from leaks and general high use.

Engaging with data and variable tariffs

Financial motivation is a key barrier/driver to engaging with usage data across audiences

- Customers who check their usage data find it makes them more conscious of their usage.
- But engagement drops off over time if bills remain stable/decrease, with customers expecting to only have a quick look when they get their bill.
- A financially-driven typology of attitudes demonstrates that for most, incentivisation needs to be of sufficient financial value (in terms of saving on bill or reward).

Other barriers include data access and presentation

- Many customers do not have real-time data access or are unaware of it due to poor communication or its location in rarely used online accounts.
- This is exacerbated by the lag between installation and live data being available for customers.
- Data presentation needs to be simple and show cost and water saving tips to be more relevant.

40% support the use of variable tariffs, while 24% actively oppose

- On balance, informing customers that variable tariffs are revenue neutral does have a positive, albeit small, impact on support.
- However, in the qualitative sample, even amongst self-perceived low users and smart metered, most remain suspicious of company motivation for variable tariffs, and unsure about who would pay more.

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Awareness of and attitudes towards the smart meter rollout

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Many people have not heard of water smart meters, or their rollout at scale

Customer knowledge of what type of meter they have is very low, even amongst those that had a recent smart meter installation

This is because of:

Low salience of online account information

- Customers are **unlikely to look at their accounts** to check what meter they have, as most just pay their bill directly.
- When prompted, customers found it difficult to locate this information/felt that it was not clear enough.
- There is an assumption that if you do not have access to your data, then it cannot be a smart meter.

Low awareness of installation

- Because customers have low recall of company communications and can find the terminology they use unclear.
- Plus, screw-in installs can happen whilst customers are out, or customers can unknowingly move into a property with a smart meter.

Confusion about terminology

- E.g. does ‘updates automatically’ or ‘upgraded meter’ mean smart?

Smart capable customers are especially likely to assume they are still on a traditional meter

There is a risk that if companies don't describe them as 'smart', customers will not understand what type of meter they have.

Most customers can understand their key features, based on an understanding of energy smart meters

- Takes **automatic readings.**
- Provides accurate **usage data** to customers, so that they can monitor their usage.
- A minority (often those with direct experience) also understand that a water smart meter helps with **leak detection** and are positive about this.
- Some customers expect or desire an in-home display (like they have for energy).

95 %

have heard of energy smart meters (*U-Switch, 2024*)

Digitally disadvantaged customers struggle to understand smart meters and how they differ from a traditional meter (due to a lack of experience with real-time data).

Customers are not aware of water stress and demand reduction as key drivers for smart meters

Customers assume that the rollout must be about more accurate data, efficient/consistent charging and billing.

When considering why smart meters are being rolled out, customers assume that…

- They help **companies save money** (as staff are not needed to read meters in person).
  - Some water sector sceptics also assume that companies must profit from installation.
- They help **customers save money**, by having access to usage data (which helps them see where to cut down).
- They **make bills more accurate** (by removing the need for estimation)

"Making it more accessible for people to get up to date readings would mean that people could get a better idea of where their water is going."
Unmetered, England

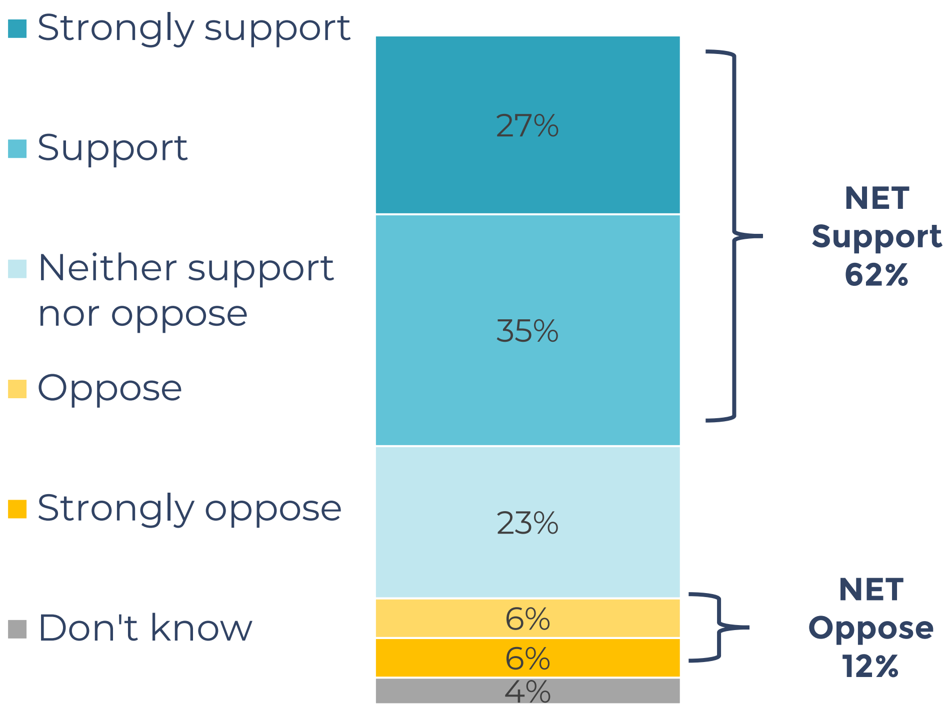
Water stress and the need for demand reduction are not top of mind as a reason for the rollout

- Information shown to customers about this was new, and surprising to most.
- Key exceptions are:
  - A minority in the East and South-East and are aware they live in dry areas, due to recent drought/hosepipe bans.
  - Some very environmentally concerned people (including one person who requested a smart meter to minimise her environmental impact).

"If you took East Anglia and South England, I believe the way they're building the houses, the way we're using the water, they foresee a water shortage in the future. So, they've got to do something to manage the water usage."
Unmetered, England

6 in 10 consumers support rolling out smart water meters, and 1 in 10 are opposed

Support for smart metering



Those more likely to **support**:

- 25-34 (76%) ▲
- Connected and managing (73%) ▲
- Metered (71%) ▲
- Londoners (71%) ▲

Those more likely to **oppose**:

- Unmetered (21%) ▲
- Detached and cost-sensitive (20%) ▲
- Expecting a bill increase (18%) ▲
- 35-64 (15%) ▲

Q10. Currently, many water companies around the UK are considering rolling out 'universal smart metering programmes' where all households will have a smart water meter fitted in order to measure water usage. Based on everything you know and have heard about smart water meters, do you support the use of them? Base: All respondents (2153)

▲▼ Significantly higher / lower than the total figure at the 95% CI

Environmental concerns do not drive support for smart meters

Whilst customers are surprised to learn about water stress, the information does not alter their sentiment toward the smart meter roll-out in most cases.

Response to information shown about water shortages:

- Fieldwork took place during a rainy winter, and water shortages felt hard to imagine or recognise locally.
    - Some assume that even if water shortages are a risk, this must be because of water companies failing to invest in infrastructure, rather than increasing customer demand.
- Whereas the direct impact of bills potentially increasing is easier to grasp for people as 'money in their pocket'.
- A minority of very environmentally concerned customers see positive environmental impacts, through encouraging demand reduction, as a reason to support smart meters.
    - One person requested a smart meter for this reason.

""Especially with the rain you've had over the last few weeks, you're thinking, 'Surely you should be capturing it all, doing something with it."
Unmetered, England

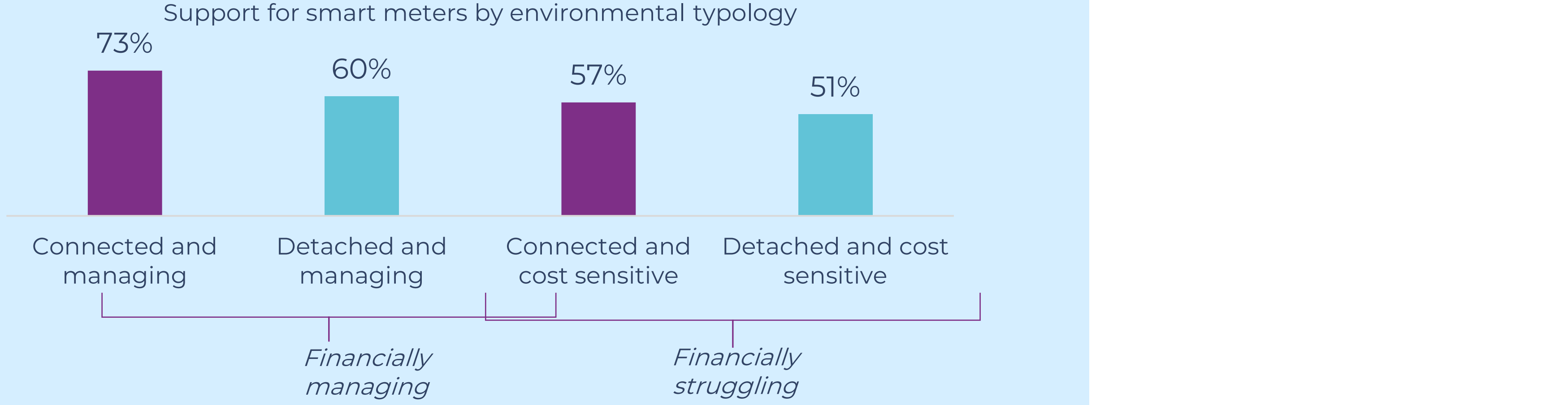
"People who have a smart meter use less water statistically, and therefore that's a better impact on the environment."
Smart metered, previously unmetered, England

"When they're talking about droughts, I find that difficult to comprehend because we get so much rain."
Unmetered, England

Environmental concern does not drive support for smart meters

The environmental typologies show a similar pattern:

- Sentiments of the four environmental typologies in the quantitative survey also suggest that cost, rather than environmental concerns, are what is impacting support for smart meters.
- The two typologies most supportive of smart meters are the two that feel the most financially stable (regardless of concern for the environment):



Customer attitudes to smart meters are linked to experiences/expectations of bill impact

Unmetered customers

- Assume they will be worse off financially, regardless of their usage (unless they've had a meter before).
    - This demonstrates a 'loss aversion' mindset (prioritising avoiding losses over seeking gains).
- Worry about the stress of constantly checking their smart meter to try to keep bills down.
    - Heightened for those already struggling to pay, and larger families (who assume they're high users).
- Do not want to pay for leaks on their own pipes, and resist companies commodifying an essential, natural resource.

Smart metered customers

- Previously metered experience minimal bill changes.
- Once previously unmetered go through the change, and their bills do not increase, they are supportive.
    - Our sample had smaller household sizes, and lower usage patterns – so were more likely to experience a decrease.
    - A few people experienced bill shocks after the switch and felt negatively about smart meters because of this.
- Positive experiences of leak detection also drive more active support.

Traditional metered customers

- Assume bills will not change much.
- See automatic readings as more convenient, as customers don't have to remember to do this themselves/be around to let staff in.

Digitally disadvantaged customers are supportive of the switch

Providing companies offer adequate in person and over the phone support to help them through the change.

Digitally disadvantaged customers

- Most are accustomed to essential services moving online, even though it is not their preference e.g. banking. They can get by with support from their peers and companies.
- They recognise that online services make things easier for the majority.
    - These customers are more likely to blame themselves for 'not keeping up' rather than blame companies for modernising.
- These customers do not have a strong understanding of smart metering and worry about the smart meter being incorrect or the company not being able to read it.
- They are likely to struggle accessing real-time data to reassure themselves that readings look correct.
- They want to be supported by a real person who can answer questions, rather than chatbots or automated messages.

"I've been told quite negative things about it. I always get the letter, you're due for smart meter, but I've always kind of like ignored it."
Unmetered, Digitally disadvantaged

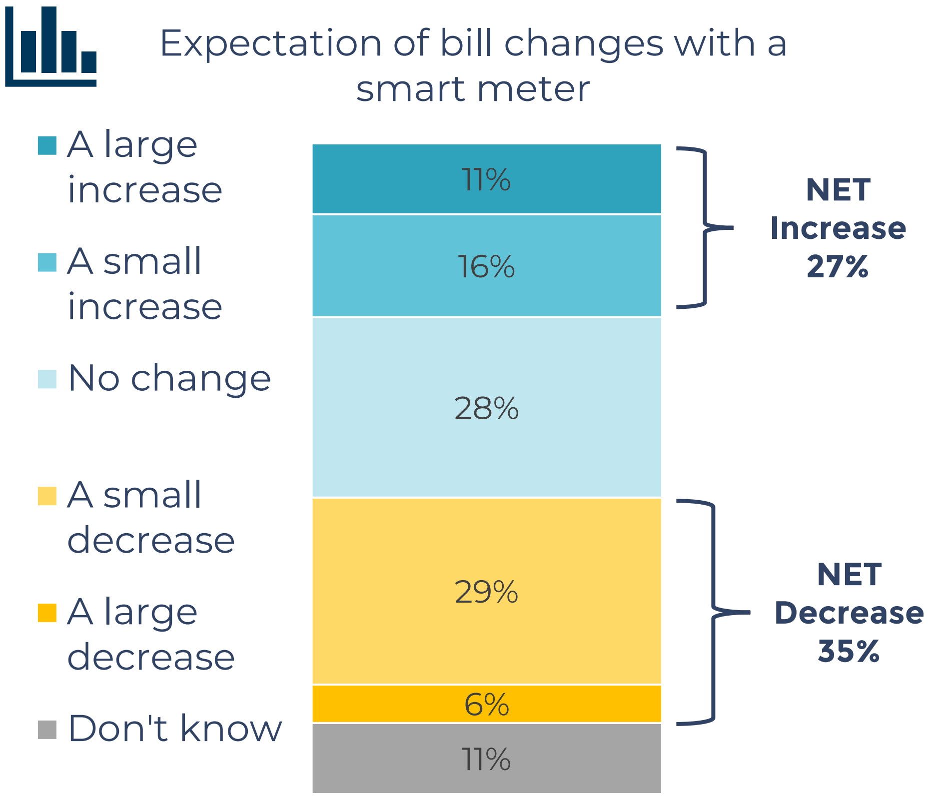
"A real person to talk to and explain things to you, and make it clear how to get in contact if you need help."
Unmetered, Digitally disadvantaged

These findings are echoed in the quantitative survey...

- Digitally disadvantaged respondents are more likely than average to think that their bill will increase with a smart water meter (42% versus 27%).
- Despite this, levels of support for rollouts are largely consistent between digitally disadvantaged respondents and the general population.

"I get scared [going online]…but you get more confidence though…you learn by doing."
Smart metered, previously metered, Digitally disadvantaged, England

A quarter of consumers expect their bill to increase due to having a smart water meter



Q13. How, if at all, do you think your water bill would change as a result of having a smart water meter?
Base: All respondents (2153)

Current information given to consumers appears to lead them to believe their bills will increase

Consumers that remember receiving communications are significantly more likely to expect a bill increase (40%) than those who have not seen any information (20%).

Those more likely to **expect a bill increase:**

- 25-34 (43%) ▲
- Londoners (43%) ▲
- Digitally disadvantaged (42%) ▲
- Recalls seeing info about smart meters (40%) ▲
- 18-24 (36%) ▲
- Connected and managing (31%) ▲

Those more likely to **expect a bill decrease:**

- 18-24 (42%) ▲
- Those with a smart meter (40%) ▲

18-24 year olds are more likely than average (27% versus 7%) to not be responsible for paying their household's water bill – potentially reflecting their split expectations of bill impacts.

Q13. How, if at all, do you think your water bill would change as a result of having a smart water meter?
Base: All respondents (2153)

▲▼ Significantly higher / lower than the total figure at the 95% CI

For unmetered customers, other concerns layer on top of the primary, financial worry

Distrust in the water sector and dissatisfaction with performance underpins concerns

Customers don't trust companies to deliver on their promises/put customers first

?! Driven by negative media, and particularly strong for water sector sceptics (including stories around sewerage, shareholder dividends and company bonuses).

- Customers often mention local leaks going unfixed, as a sign that their company is not delivering.
- Bad energy/water experiences of customers being billed based on incorrect smart meter readings, and difficulties resolving this with companies.
- Worry about elderly/vulnerable people severely cutting back on water usage to keep costs down.

"Like the man said, he's doubled his water bills, so that must be why they've put in smart meters."
Unmetered, Wales

"My mum would hate it knowing that someone was like big brother watching, monitoring her water usage."
Fully smart, previously unmetered

For unmetered customers other concerns layer on top of the primary, financial worry

Distrust in the water sector and dissatisfaction with performance underpins concerns

Due to this lack of trust, customers assume companies will...

1 Use smart meters to increase profits

- Assumption that rollout must be profit motivated (due to stories around bonuses and dividends).
- Some vulnerable respondents fear companies using real-time data to control their usage.
  - E.g. can companies raise prices in high usage areas/during droughts?

2 Not take responsibility for safeguarding water resource themselves

- Feeling that 'shifting the responsibility' onto customers is hypocritical.
- A minority of customers in Wales feel that the rollout is especially unfair because Wales does not have water scarcity issues, and historically Welsh villages have been flooded to make way for reservoirs serving England.

3 Use usage data unethically

- Worries about data privacy and companies selling on data/monitoring usage.
  - Since water usage is not seen as particularly private information, this is only influential for a few.

Typologies of smart meter sentiment: linked to experiences/expectations of bill impact

Typology	Unmetered sceptics	Vulnerable sceptics	Disengaged supporters	Engaged supporters
Billing experiences /expectations driving sentiment	Fear a bill increase, due to switch from unmetered billing • Whether low or high users, accustomed to using water freely without worrying about the cost, and do not want to lose this • Even though lower users could save (loss aversion mindset)	Have experienced or fear a bill increase when put onto a smart meter, due to high usage • For family, medical needs, or other vulnerabilities • May have low awareness of social tariff	Want all customers to be charged consistently and fairly • As they already pay for their usage 'so should everyone else' But not motivated by desire to control bill, as: • Low users, so experienced no bill increase following switch • Metered customers: expect bills to remain stable	Want all customers to be charged consistently and fairly Support is strengthened because they like the idea of being able to control bill • Whether low or high users, want to make changes to water use with access to real time data • Plus, more likely to be aware that metered households pay less than unmetered households
Additional factors driving views	• Low trust in water sector • Concerned over data privacy and having usage controlled	• If have smart meter, low awareness of it (risks bill shock): e.g. moved into a property with a smart meter	• If have smart meter, low awareness of it (but bill shock less likely, due to low usage)	• If have smart meter, high awareness of it
Metering type	• Unmetered	• Smart metered (previously unmetered) – vulnerable, digitally disadvantaged	• Fully smart metered (previously unmetered or metered), metered	• Smart capable or fully smart incl. previously unmetered

Scepticism could be mitigated by:
- Providing billing scenarios in advance

Scepticism could be mitigated by:
- Support to prepare for living with a meter, and with bills.

Typologies of smart meter sentiment: pen portraits

Unmetered sceptics	Vulnerable sceptics	Disengaged supporters	Engaged supporters
• Mike* is unmetered and lives with his elderly mother. • He is not happy that a smart meter might increase his bill, even though he does not believe he is a high user as a 2-person household. • He is concerned over data privacy. • He does not want to have to monitor or worry about how much he is using. • He is sceptical of the water sector and believes they must be trying to make a profit with smart meters.	• Mirah* moved with her husband and 3 teenagers, into a property with a smart meter, from an unmetered home. • She has financial and mental health vulnerabilities. • She was not initially aware of the smart meter and experienced a bill shock of £2500 after a year in the property. • She is resistant to metering in general (including smart metering) because of her experiences. • She feels too busy with daily life to engage with water use data.	• Sonia* moved with her partner into a house with a smart meter and access to real time data (previously she lived in an unmetered flat). • She was initially worried bills would go up and checked her data regularly to start. Now she is comfortable that she will not get a shock bill, she checks it less often. • She sees the smart meter roll-out as a fair and consistent way of charging.	• Razia* has a smart meter and lives with her partner and 3 kids. • She believes the family uses a lot of water for laundry, cleaning, showering. • However, she believes she pays less on a meter than her neighbours. • She is very interested in real time data (not available currently) and water saving support, to learn about where she can cut down and further control her bill. Key * = pseudonym

Typologies of smart meter sentiment - pen portraits

Unmetered sceptics	Vulnerable sceptics	Disengaged supporters	Engaged supporters
"I don't have any smart meters, I don't want them. Um, one, what's the point for me? That just a way of harvesting data." *Unmetered, England*	"I was quite shocked because when we viewed the property the owner didn't tell us that we've got a smart meter….We were using the water like there was no tomorrow and then realized, oh my God, this is a meter." *Smart metered, previously unmetered, England*	"I was checking it a lot because I was a bit worried about the price… it's kind of settled down, so I don't look at it as much, but it is useful to know it's there in case like something happens like that again." *Smart metered, previously unmetered, England*	"People were talking about their water bills…I was paying less than my next-door neighbours…I think that's encouraged them to get water meters." *Smart metered, previously unmetered, England*

Most customers have qualms about compulsory roll-outs of water smart meters

Differences in opinion are typically based on the perceived fairness of compulsory metering.

Anti-compulsory

- Against smart metering, and do not want to see this become compulsory.
- Do not trust water companies to implement this fairly or transparently (especially water sector sceptics, who do not trust the process to be revenue neutral).
- Reactions could be tied to reactance theory, whereby individuals push back on an idea if they feel it is limiting their freedom.

Unmetered groups fear bill increases and view water as an essential resource that customers should be able to use freely.

Mixed sentiment

Across all metering types, even if they see smart metering as fair:

- Customers have qualms about forcing metering onto others and taking away choice.
- They express concern about the impact on high users (especially those who cannot control this).

Pro-compulsory

- A small minority of smart metered customers are in favour of compulsory roll-outs as they do not believe it is fair for people to refuse a meter. They believe everyone should be charged in a consistent manner.

Consumers think cost factors like fairness and usage monitoring are the most justifiable reasons

	NET Agree
Fairness - everyone should be treated the same way, and pay for what they use	81%
Because smart meters can give customers more information **about their water use**	76%
If the information that customers see about their water use **helps them to use less water**	73%

Q11. To what extent do you agree or disagree that the following are justifiable reasons for water companies to roll out compulsory metering? Base: All respondents (2153). See full chart in Appendix

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Expectations of the journey to smart-metering

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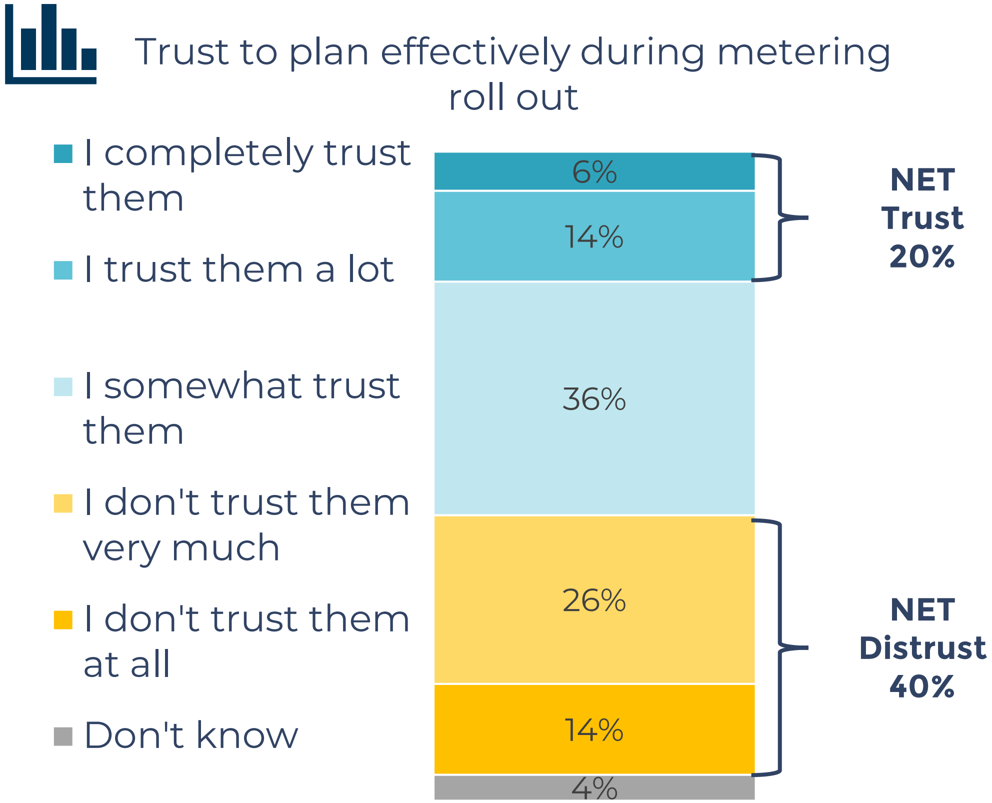
4 in 10 do not trust their water company to take a balanced approach to their smart meter rollout



Q16. How much, if at all, do you trust water companies to balance things like cost, customer preferences and time taken to complete the rollout overall when deciding their approach to universal metering?
Base: All respondents (2153)

Older consumers, and those from the South of England, are most distrustful of their water companies

Those more likely to trust:

- 25-34 (41%) ▲
- Recalls seeing info about smart meters (41%) ▲
- Londoners (37%) ▲
- Connected and managing (33%) ▲

Those more likely to distrust:

- South of England (52%) ▲
- 65+ (50%) ▲
- Unmetered (46%) ▲
- Connected and cost-sensitive (45%) ▲

Q16. How much, if at all, do you trust water companies to balance things like cost, customer preferences and time taken to complete the rollout overall when deciding their approach to universal metering?
Base: All respondents (2153)

▲▼ Significantly higher / lower than the total figure at the 95% CI

Customers want to see smart meters rolled out in the most cost-effective way possible

They also believe starting with water-scarce areas and opt-ins to be the logical methods for initial roll-outs.*

*Customers were asked to pick their top three roll-out options

Whatever way is the cheapest / most cost-effective

- Customers are aware that bills have risen; anything that can be done to mitigate further increases is seen to be positive.
- Selected as top option primarily by water sector sceptics, who believe water companies should avoid anything that takes money out of customer pockets.

"Saving money would always be my top priority."
Smart metered, previously unmetered, England

Starting with the areas with the most water scarcity

- Feels logical if water companies' priority is alleviating water scarcity.
- Selected as top option primarily by those with a smart meter as they can see how smart meters can help keep usage down, helping water scarcity.

N.B. Views may have been influenced by stimulus on water scarcity shown beforehand

Start with customers who opt-in

- Seems straight forward.
- Less reputational damage as customers are not 'forced' onto meters. Some suggest using this could help with local awareness and communications.

Most popular choice.

Second most popular choice.

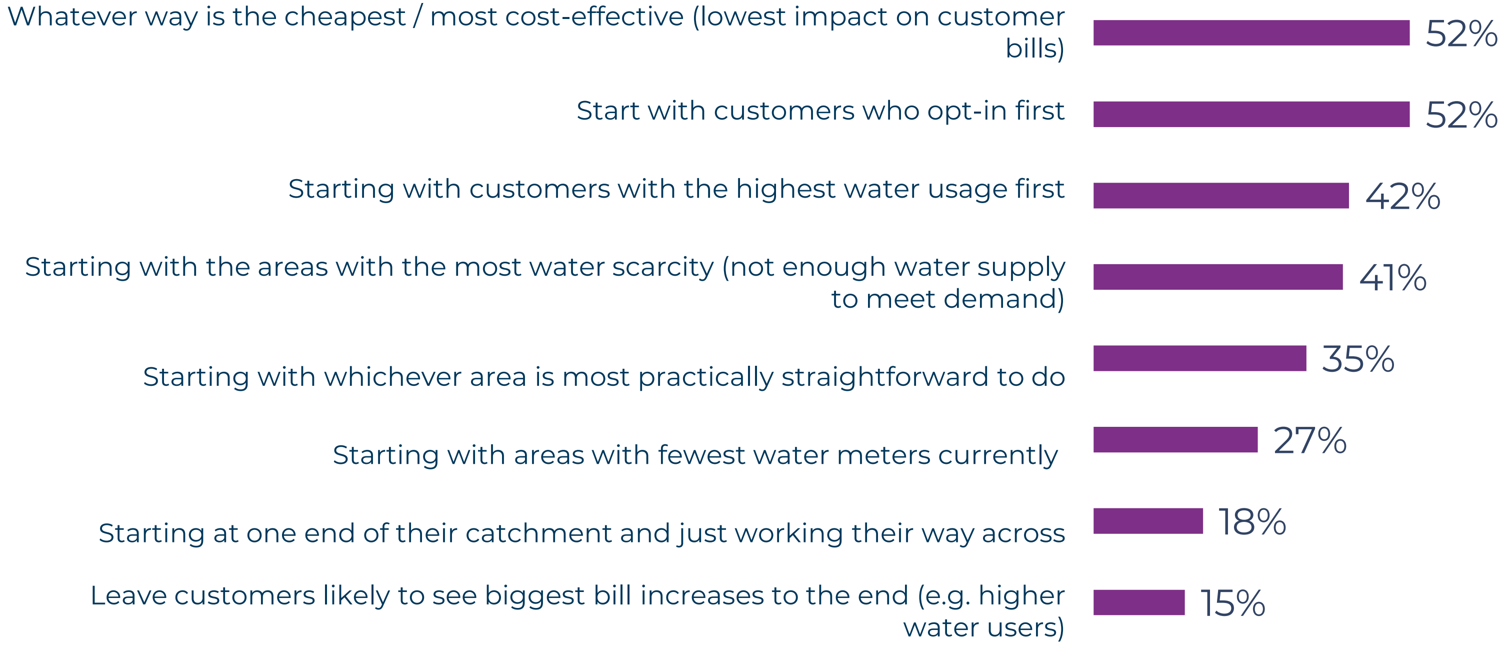
Third most popular choice.

Q14. How would you prefer water companies plan their smart metering programmes (i.e., how would you most like them to roll out smart meters to their customers)? Base: All respondents (2153)

Customers also believe starting with water-scarce areas and opt-ins to be the logical methods for initial roll-outs.*

*Customers were asked to pick their top three roll-out options

Consumer planning preferences (% ranked in top 3)



Q14. How would you prefer water companies plan their smart metering programmes (i.e., how would you most like them to roll out smart meters to their customers)? Base: All respondents (2153)

Recall of communications received during the rollout is low

Customers have come to expect multi-channel communications from companies (bar the digitally disadvantaged).

Physical communications

- When prompted, many customers who have experienced an installation or upgrade cannot recall communications received.
- Customers expect physical communications like letters and leaflets to be used throughout for information giving, particularly about the journey from installation to living with a meter.
- Customers also support using bills for information giving, as they're more likely to read these.
  - Anything new or important needs to be eye-catching.

Some companies have avoided using the word 'smart' on communications, believing this might discourage customers. However, there is a possibility that this is causing larger confusion about installs and upgrades, which could explain why some customers have low awareness.

Digitally disadvantaged customers rely much more on physical communication. They would like to see more in-person community engagement from water companies to keep installation on their radar and to allow them to ask questions about the process.

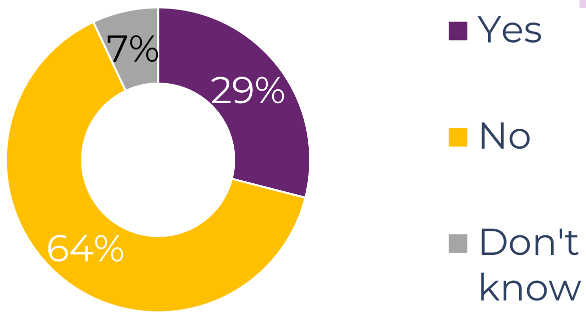
Texts and emails

- Customers believe text and email reminders should be used alongside physical communications to keep the installation on customers' radar.
- This communication should be shorter form compared to physical communications - acting purely as reminders.

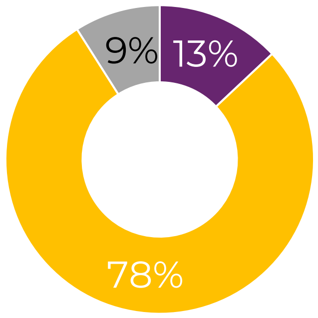
Customers have come to expect companies to use multi-channel communications e.g. receiving text and email reminders about parcel deliveries. They therefore expect water companies to use similar methods during the metering journey.

Around two-thirds of consumers do not recall seeing any information about smart water meter installation

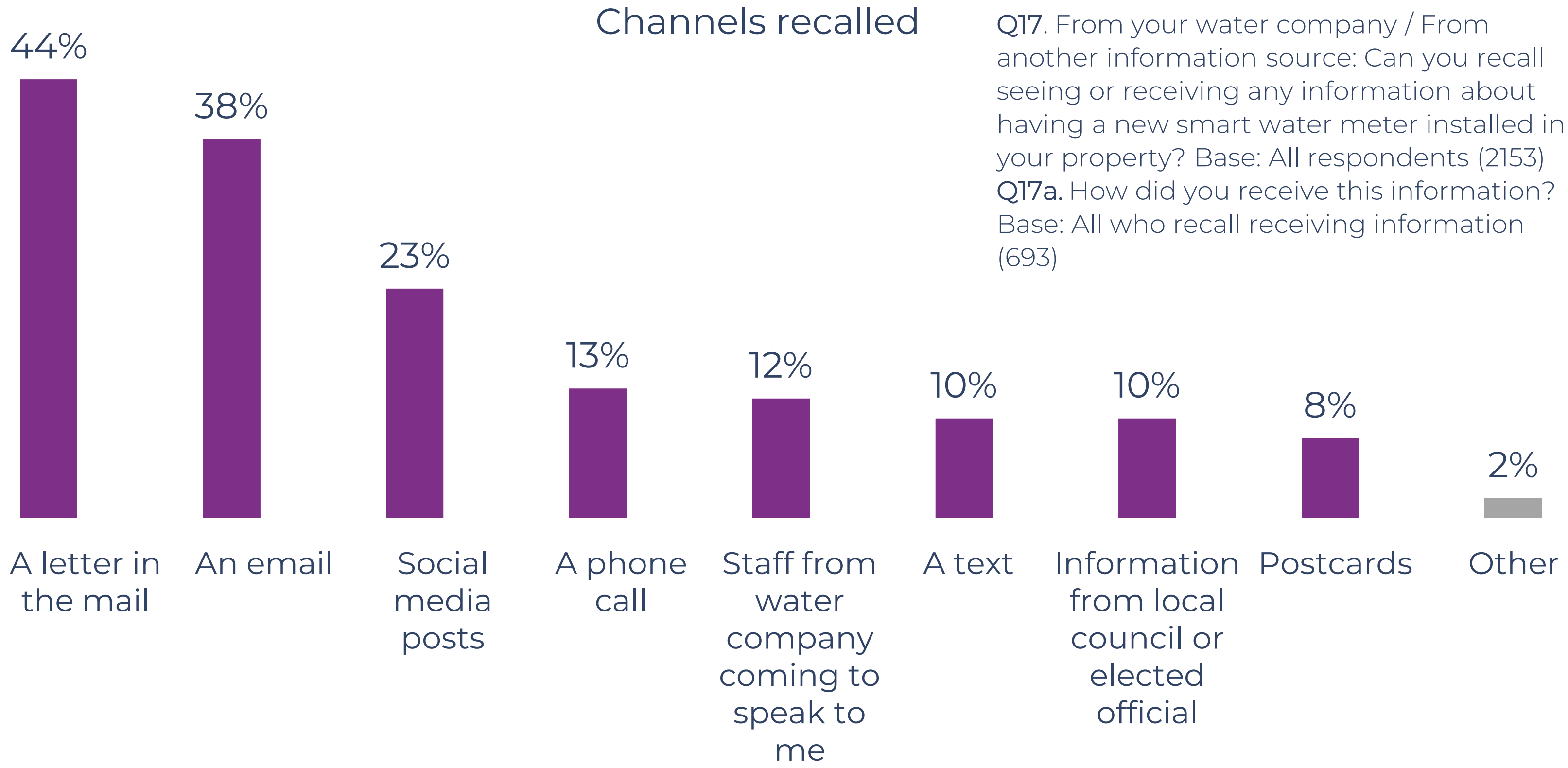
Recall of information from water company



Recall of information from another source



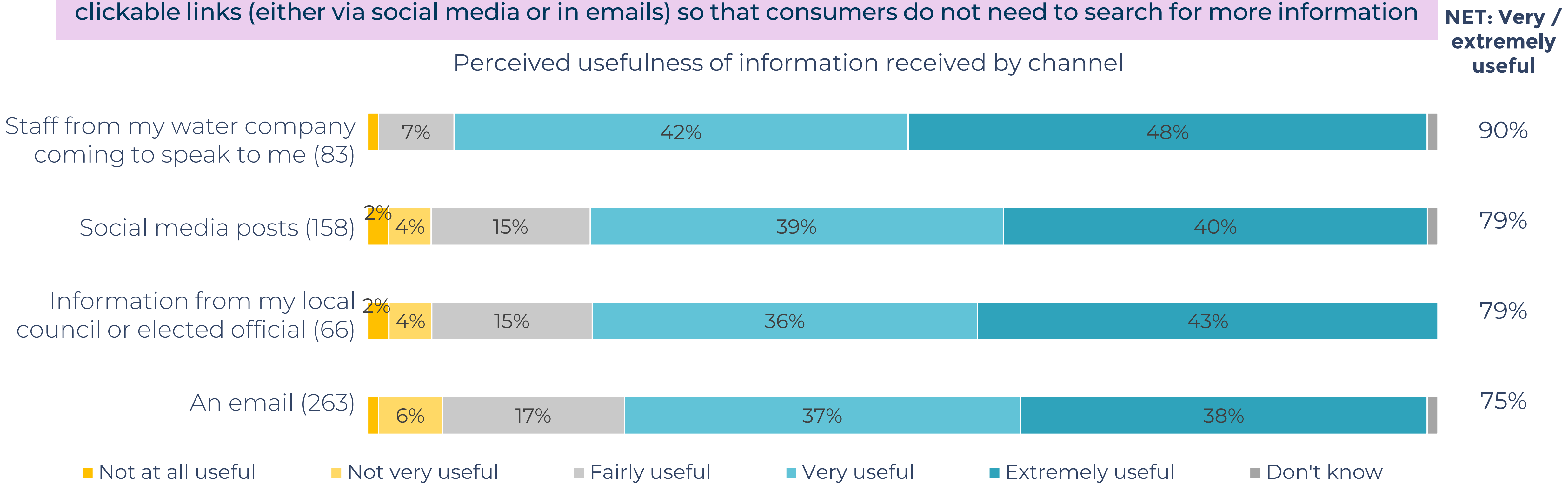
Consumers who do recall information, most commonly recall receiving a letter or email, or seeing a social media post



Q17. From your water company / From another information source: Can you recall seeing or receiving any information about having a new smart water meter installed in your property? Base: All respondents (2153)
Q17a. How did you receive this information? Base: All who recall receiving information (693)

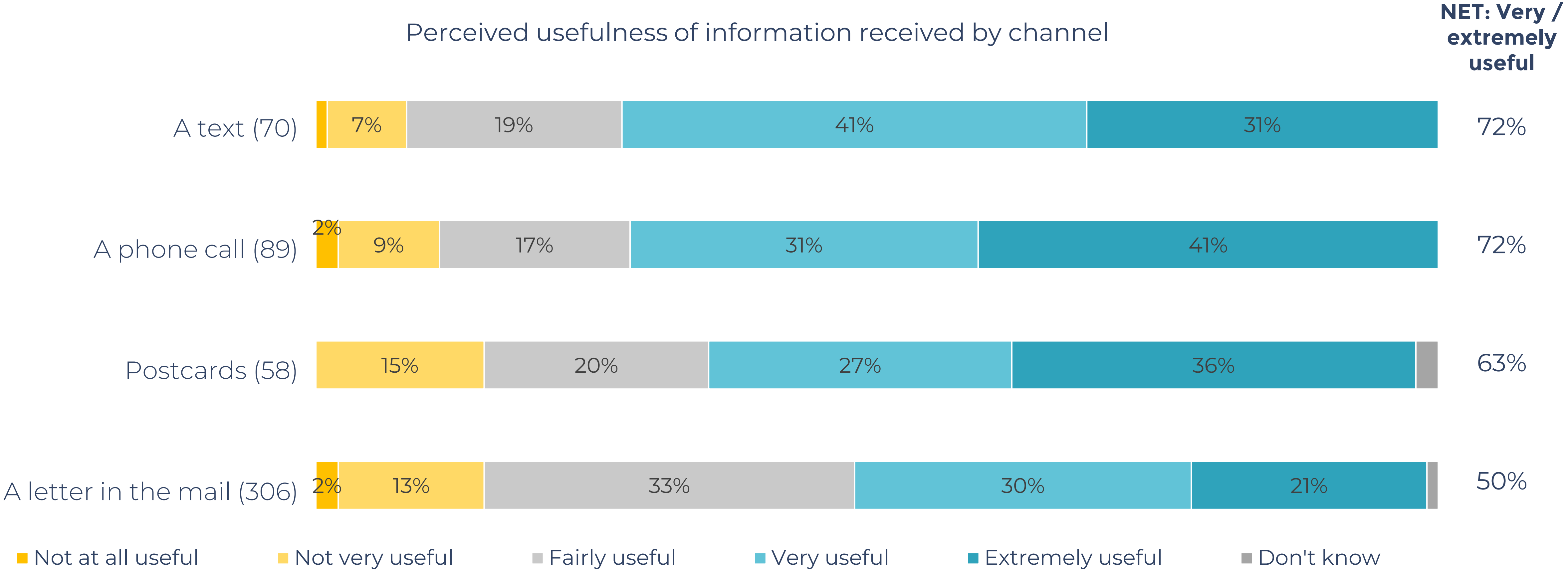
Channels which enable easy access to further information are seen as the most useful

9 in 10 consumers found speaking to water company staff useful – highlighting the importance of having a team ‘on the ground’ to talk to people during installations. Beyond this, it is most important to share information with clickable links (either via social media or in emails) so that consumers do not need to search for more information



Q17b. How useful, or not, did you find the information? Base: All respondents who recalled information via each channel (base sizes on chart) *caution; low base size

Analogue channels like a postcard or letter are seen as comparatively less useful



Q17b. How useful, or not, did you find the information? Base: All respondents who recalled information via each channel (base sizes on chart) *caution; low base size

The voice for water consumers
Llais defnyddwyr dŵr

Customer experiences and the ideal smart metering journey

ccw.org.uk

A majority experience minimal disruption

Even though communications and support around the installation are low or not engaged with

Poor experiences of the smart meter installation journey

- Either receiving **no forewarning or one that felt too** authoritarian in tone.
- Damage and delays on the day.
- Poor aftercare e.g. lack of water saving tips and billing updates.

Sue: Smart metered, previously unmetered

- Shortly after having a compulsory meter installed, Sue discovered a leak. Her husband, a civil engineer, discovered that a pipe had been bent during the installation.
- When she contacted her company about the issue the company repeatedly told her that the installation was fine and refused to send an engineer out to inspect. Sue ultimately had to have the leak repaired herself and felt let down by the installation process.

Middling experiences of the journey (most customers)

- Struggle to recall what communications or forewarning they were sent.
- Installation non-disruptive, with many not initially knowing that it had happened.

June: Smart metered, previously unmetered

- June cannot recall any metering communications that she was sent but was happy with her external installation as this was non-disruptive.
- June did have worries about billing and whether engineers needed indoor access, as she wasn't sure what the installation process entailed, but these worries reduced naturally as the process continued without major problems.

Good experiences of the journey

- Receiving a forewarning of an installation that details how this will be fitted and why.
- Having friendly engineers.
- Experiencing a non-disruptive installation.

Carly: Smart metered, previously metered

- Carly received clear communications prior to the upgrade, she felt this detailed everything she needed to know and prepared her for the installation.
- She describes the installation as quick and unobstructive, causing no disruption. The process met her expectations exactly.

Some customers we spoke to had moved into a house with a meter and therefore did not experience an installation.

Ideal smart meter journey: pre-installation

Customer priority is for water companies to make people aware that an installation is planned using multiple communication channels.

As soon as possible

Raise in-area awareness that compulsory metering/upgrades are happening soon, and customers should watch out for further communications.

Multi-channel, including billboards and traditional media campaigns e.g. leaflets/letters.

One month before

More detailed communications outlining what happens during installation, why meters are being installed and when*.

These communications should include next steps e.g. whether customers need to be at home for the installation, if they need to move their car etc.

Longer form physical communications e.g. leaflet/letter.

A few weeks before

Customers able to book appointments for in-home installations (to fit around their schedules).

Email and SMS reminders of installation date and next steps to keep installation on customers' radar and catch anyone who has missed communications.

One day before

A final reminder to keep installation on customers' radar.

E.g. SMS like during a mains leak.

Key

= information/support

= channel

*Customers also want information about billing, supply pipe responsibility and the metering process. More information in later slides.

Additional audience needs: pre-installation

Unmetered and digitally disadvantaged customers want the metering journey to be demystified and expect water companies to be able to offer any information they request in an accessible manner.

As soon as possible

- Information about how to file a complaint / refuse the installation if needed.
- A complaints number with a real person on the other end and an online form that they can fill out.

One month before

- More information about billing and living with a meter, to help them understand the likely bill impact and how to avoid a bill shock.
- A bill calculator/estimates and an online chatbot for Q&As.

A few weeks before

- More personalised communication about what smart metering is and what it means for them.
- Community engagement via mobile vans and representatives going door to door.

One day before

- Succinct, printed reminders of appointment e.g. short form postcards.

Key

= information/support

= channel

*Customers also want information about billing, supply pipe responsibility and the metering process. More information in slides 36-40.

Ideal smart meter journey: during installation

Customers want practical information and minimal disruption on the day of the installation.

Expect a helpful and friendly engineer with a form of ID or password.

Left with a 'cheat sheet', including who to call if there's an issue, how to access and read data, how to spot leaks and water saving tips. Some also believe this is a good opportunity to be given water saving devices.

Printed booklet.

Engineer arrives → Installation → Engineer leaves

Practical information about the duration of the installation including when installation starts and concludes, if water will be switched off and, if the engineer leaves, when they will return.

Customers experiencing an in-home fitting are happy for this to be verbal, for an outside fitting this information can be in the form of SMS.

Minimal disruption during installation.

Key

= information/support

= channel

Additional audience needs: during installation

Digitally disadvantaged and unmetered customers would like a walk through, while previously metered customers prefer a hands-off approach.

Unmetered customers, and those experiencing in-home installation expect a walkthrough of where the meter will go, what installation involves (including details of any cutting/drilling needed), and assistance creating a space for it.

Information given verbally by a friendly and respectful engineer.

Bottled water if water is cut off for an extended period due to installation.

Engineer arrives → Installation → Engineer leaves

Previously metered customers anticipate minimal disruption, and prefer a hands-off approach.

Shown where to access the data and given tutorials on how to interpret data.

Information given verbally, and accompanied by a 'cheat sheet' booklet left behind.

Key

= information/support

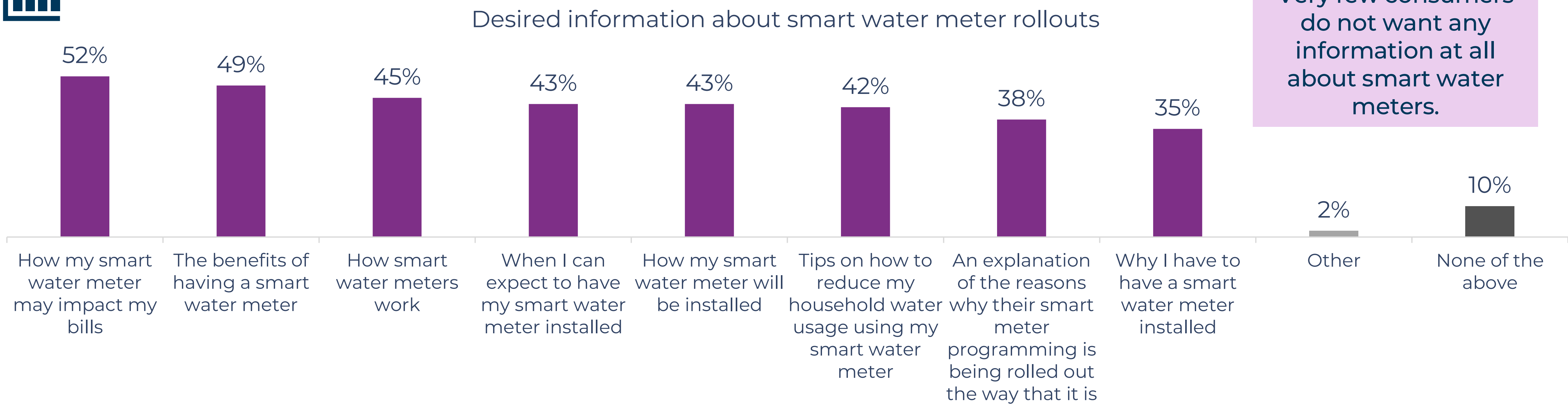
= channel

The voice for water consumers
Llais defnyddwyr dŵr

Wider information and support needs during the journey to smart metering

ccw.org.uk

Half want to know more about the bill impacts and benefits of having a smart water meter



Very few consumers do not want any information at all about smart water meters.

Q18. What additional information, if any, would you like to receive from your water company about their rollout of smart water meters?
Base: All respondents (2153)

When asked how they would like to receive this information, the most preferred channels are via email or a letter in the mail. This again highlights how consumers want information given directly to them, without them having to actively search for it.
See the appendices for a breakdown of preferred channels by each desired piece of information

Billing support needs to be targeted at those that are vulnerable and/or likely to see a bill increase

Customers understand that rollouts involve (potentially compulsory) changes to meter type, the risk of billing increases and a need to access new technology. They identify audiences in need of further support due to this – many of which may intersect.

Unmetered customers

- Customers generally assume that unmetered customers will need most support with the change, due to the risk of experiencing the biggest bill shock.

Customers suggest:

- Offering bill calculators or bill scenarios, to reduce cost uncertainty.

Customers who use more water

- Concerns that these customers may face bill shock that is out of their control e.g. having higher usage due to having large families or medical conditions.

Customers suggest:

- Offering water saving tips and devices.

Lower income customers

- Concerns for how customers on lower incomes will adapt to having smart metered billing.

Customers suggest

- Offering financial support and flexible payments.

Digitally disadvantaged

- Concerns for how these customers will access usage data and whether they will be able to interpret bills.

Customers suggest:

- Offering guidance on how to access data.

"I think vulnerable customers will need tailored support depending on what their vulnerability is, right? So, looking out for people like that."
Smart metered, previously metered, England

Regardless of current metering status, customers struggle to grasp the concept of 'smoothed billing'

They instinctively assume they will be billed monthly based on usage, and do not see the point of smart meters and worry about bill shocks if they are not billed monthly. High use alerts would help mitigate concerns.

Customers are concerned when learning about smoothed billing

- Customers assume that they would be billed month to month based on usage and question the point of smart meters when shown stimulus that tells them this is not the case.

- They fear 'racking up' a big bill over 6 months, particularly if moving from unmetered and if they have no immediate access to real-time data.

"I thought it would be…different every single month. So that was just a bit confusing, but I'm not really mad about that because it kind of helps with budgeting."
Smart metered, previously metered, England

Views on smooth billing evolve as discussions continue

- As discussion evolves, customers start to realise smooth billing can be appealing for consistent monthly payments.

- Customers want to see alerts when usage is unusually high (separate to leaks) to mitigate these worries. They feel this would allow them mitigate potential bill shocks and find opportunities to reduce usage.

- Communications may need to reassure customers that overall, they are being billed accurately based on their smart meter usage, and that smoothed billing can provide stability.

Customers have mixed awareness of supply pipe responsibility even when smart metered/metered

Leaks can happen to anyone and identifying leaks lands well with customers as a justification for smart metering (even with those dissatisfied about supply pipe responsibility).

Detecting a leak

- Only a small number are aware that smart meters can help customers and companies detect a leak.
- Customers think of mains leaks first, as these are more visible locally, and do not register that a smart meter could help by identifying ‘continuous flow’ from their own property.

For unmetered customers, paying for water used during a leak is a big worry for switching to a meter.

Supply pipe responsibility

Customers that are aware of responsibility:

- Aware due to home emergency cover, pipe insurance letters or have received big bills from leaks.
- Those with direct experiences of leak prevention are more likely to feel positively about their smart meter. They understand that an abnormal spike in usage would indicate a leak and can act on this more quickly.

Customers that are not aware of responsibility:

- Think they are not responsible as they believe the company laid or owns the pipes and should therefore repair these. They also assume that the bill covers maintenance or that customers cannot damage pipes themselves.

Regardless of previous knowledge, customers are generally dissatisfied with the idea of paying for a leak (repair and cost of extra water use). Leak detection is a strong motivation for supporting smart meter installation as this allows for leaks to be detected early and acted on, reducing unnecessary costs.

72% agree that leak detection is a justifiable reason for compulsory rollout of smart water meters

Once customers find out more about supply pipe responsibility, they feel strongly about having direct alerts to inform them in real time

Customers believe that smart meter installation is a key moment for information giving on leaks.

Receiving a leak alert

- 9 in 10 customers want a direct notification if a leak is detected.
- All want a notification either immediately or within a day, to avoid:
  - Larger bills.
  - Damage to their household.
  - Unnecessary water waste.
- There is an expectation of being quickly notified as water companies will have access to real time data. Customers therefore believe there's 'no excuse' for delayed notifications.

Learning about leaks

- Regardless of whether they know about responsibility or not, customers want companies to do more to inform them.
- Customers want to know:
  - Their responsibilities for maintenance, repair and liability for cost of extra water usage.
  - How to detect leaks using their smart meter.
  - The cost of leaks both for water usage and for any repairs.
  - Who to contact in the event of a leak.
  - How to maintain pipework and guidance for flats/tenants and shared supply.

Customers highlight smart meter installation as a key moment for communicating about responsibility and upskilling – given customers see identifying leaks as a key benefit. Other suggestions include when moving to a (smart)metered house, when a leak is detected and on bills.

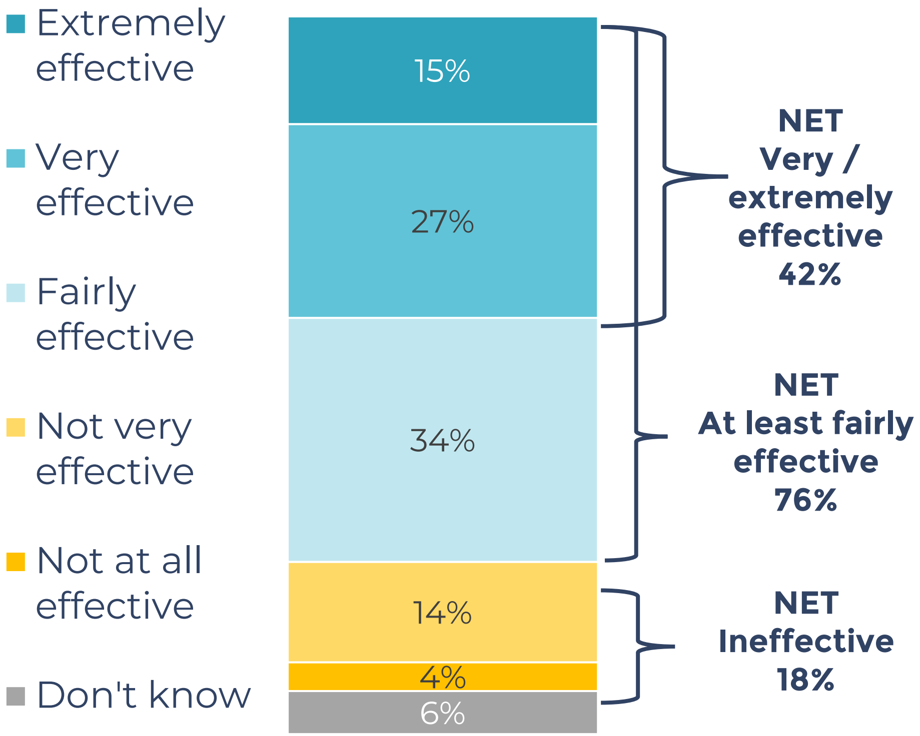
The voice for water consumers
Llais defnyddwyr dŵr

Engaging with smart meter data to change behaviours

ccw.org.uk

4 in 10 expect smart meters to be very or extremely effective in helping reduce water usage

Perceived effectiveness of smart water meters



Younger consumers are among the most likely to perceive smart water meters to be effective:

Those more likely to expect them to be **very / extremely effective:**

- 25-34 (60%)
- Londoners (56%)
- Expecting a bill increase (54%)
- 18-24 (51%)

Those more likely to expect them to be **ineffective:**

- Detached and cost-sensitive (28%)
- South of England (25%)
- 65+ (24%)
- Unmetered (22%)

Q12. How effective, or not, do you think that installing smart water meters will be in helping households to reduce the amount of water they use? Base: All respondents (2153)

Significantly higher / lower than the total figure at the 95% CI

Smart meter engagement typologies map onto sentiment typologies first shown on slide 27

Typology	Unmetered sceptics	Vulnerable sceptics	Disengaged supporters	Engaged supporters
Experiences / expectations of engaging with data to change habits	**Little interest in engaging with data** • Do not want to overwhelmed by complex, real-time data. **Unwilling to cut down usage** • Sensitive to tips about changing personal habits as 'being told what to do.' • Unsure how to reduce usage, assume is harder than for energy, due to low awareness of water use around the home, and not feeling they can cut back on essential hygiene related usage. • Not impressed with low financial incentive to engage in energy flexibility schemes.	**Do not feel capable of accessing online data, due to vulnerability** • May not currently have online account, or would not know how to, or have time to access it. **Do not feel capable of changing usage due to large family / vulnerable circumstances**	**Initially interested in data, but engagement likely to wane** • Initially look at data to check costs remain stable after switch. • Interest decreases as bills remain stable and manageable. **Want cutting down usage to be incentivised and low effort** • Low interest in full water saving audit. • Feel incentivisation needs to be worthwhile to motivate behaviour change.	**Interested in using data to change habits and control costs.** • Likely to check data regularly. • Open to having more data and information available on their app/account. • Interested in more detailed understanding of water saving advice e.g. which appliances / activities use more.
Would benefit from	• Financial incentives • Free/discounted water. saving device of value e.g. water butt. • Simple data presentation.	• Support to access data (incl. offline options) and change water habits at home e.g. call or home visit. • Tariff and payment support, especially for vulnerable customers.	• Data, tips and incentivisation (e.g. £5 voucher) to be easy to access.	• Real-time data to show cost, more tailored water-saving audit: e.g. Get Water Fit survey linked to real data. • Incentivisation and gamification.

Typologies of smart meter engagement: pen portraits

Unmetered sceptics	Vulnerable sceptics	Disengaged supporters	Engaged supporters
• Matthew* is unmetered and elderly. He likes to wash his car and water his vegetable patch. • He feels life is too short to bother to engage with water use data or changing habits; unless the bill increases significantly. • He is considering digging a well if his water company installs a smart meter / bills go up. • He wants his water company to fix mains leaks, rather than impose metering on households.	• Bilal* is digitally disadvantaged and believes he has a smart meter. • He has caring responsibilities which require him to use more water for washing and cleaning. • Bilal experienced bill shock when his initial metered bill came through. As he was previously unmetered, he was shocked by how expensive his bill was. • He tries to cut down where he is able, but this is made difficult by his need for water use and his inability to access data.	• Callum* has a smart meter (previously unmetered). During the research he discovered his online account has real-time data. • He and his partner live together, and children occasionally return from university. • Callum appreciates that bills seemed to have lowered and that he can now act more quickly if there was a leak. • He was interested to see his data but does not think he'll look at it regularly.	• Vicki* has a smart meter (previously unmetered). She was aware she could access real-time data. • She had a compulsory meter fitted and was originally worried bills would go up / be unpredictable. • She is pleased bills have gone down, likes feeling in control and has modified behaviours. • She checks her data very regularly, to the extent she worries about having guests and how that impacts use. • She would be open to gamification to engage with her data, but recognises as a retired person she has time and can be flexible.

"The more I hear about them, the more I think I haven't got room in my life to get involved in how much water I'm using. I'm not a wealthy person, but I'm not going to walk around in dirty clothes."
Unmetered, England

"[Smart metering] was the biggest transition I had to do...you have to be careful about your water usage"
Smart metered, digitally disadvantaged England

"We'd actually ended up paying less for our water than the flat rate, which was interesting...I think initially when we first looked at it, it did go down."
Smart metered, previously metered, England

Key
* = pseudonym

Behaviour change journey: barriers to customers engaging with their smart meter data, and using it to change habits

We have used the COM-B model of behaviour change to categorise barriers and make recommendations based on customer expectations, and experiences (including positive experiences of some fully smart customers).*

Capability + **Opportunity** + **Motivation** = **Engaging with data to change habits**

Capability

Once real-time data is available, most will be capable of accessing and understanding it.

- However, if the information does not show bill impact/isn't simple enough to navigate and understand, many will struggle to make sense of its relevance.
- Digitally disadvantaged customers are a key exception: with many not having / able to use online accounts.

Opportunity

Only a minority of customers have access to real-time data.

- Even if they do, they are not aware of it (no communication received / engaged with).
- Any lag on real-time data makes it less useful for spotting usage patterns.
- Quality/reach of water saving tips is felt to be low and not integrated with smart data.

Motivation

Customers are financially motivated, but don't see how they can cut down:

- Having a portal to access data is not enough in itself to encourage customers to engage, when water costs less than energy, and customers see their usage as essential.
- Without financial incentivisation (meaningful savings on bill or vouchers) engagement is likely to drop amongst most, bar the most cost conscious.

*Further detail, including information about each barrier to behaviour change, can be found in the appendix.

Capability suggestions: online portal proactively signposted to customers

Provide an online portal which is easy to navigate and understand

An online account (available in browsers) to act as a 'central hub' for everything water-related (including usage data and water saving tips) which:

- Minimises the amount of data shown on one page (including making it easy to pay the bill) to avoid overwhelming customers.
- Makes cost information clear from the outset – this is key for most.
  - Appliance specific and carbon emission data is less in-demand - customers question its accuracy, and don't understand how emissions relate to water usage.
- Presents information visually and minimises text, with data comprehensible 'at a glance'.
  - E.g. comparisons to similar size households, and colour coded dashboards tracking usage against a daily budget (like energy smart meters).
- Allows customers to toggle between different frequencies of usage data, and data visualisation options e.g. number of kettles vs bathtubs.
- Provides bill breakdown graphs, to satisfy customer curiosity about cost of standing change and how much of their bill they can influence.

Proactively signpost the portal to customers

- With clear, multi channel communications to inform them about how to set up and look through their account, and when data is live.

Offer proactive support for digitally disadvantaged customers, including offline alternatives

- Provide a first-time user guide to access data (incl. setting up an online account).
- Provide offline alternatives, like giving usage information on bills/via helpline.

"It would be good to have pictures and visuals, because not everyone's got a good understanding of things in writing."
Smart metered, previously metered, England

Opportunity suggestions: low effort, personalised water saving tips

Low-effort, personalised water saving tips (helping customers turn data into action)

- Signpost water saving devices, and option for staff visits to conduct water usage audits
- Micro-usage data could have future potential in generating personalised tips (even though most aren't interested in this data for its own sake)
  - This would address the dilemma that customers want to see personalised tips, but find tools like GetWaterFit (an online water usage calculator) too much effort to fill out.

Help to prioritise where to cut down

- Give information about what uses most water in a typical house (to help target efforts), and cost per activity/of reducing types of usage (especially helpful for children, who are seen as high users)

Proactive delivery of tips

- Tips need to be delivered directly according to channel preferences - most admit they won't follow QR codes.
- Delivered when meter installed/first billed (key moment), with bills or when usage is particularly high, plus option to opt in to more frequent notifications.

"If there were subsidised water butts, we'd happily install two or three around the property. But it's something that you don't get round to if there's no pressure to do it. " *Unmetered, England*

"Needs to be all in one place, easy to get a hold of. Otherwise, it's just going to be too much effort to look at."
Smart metered, previously unmetered, England

Motivation suggestions: notifications, incentivisation and community engagement

Notifications

- Alerts for high usage/suspected leak as standard to motivate customers to check data when they are at risk of higher bills.

Raising awareness of reasons to save water, and how to cut down

- Investment in extensive communications campaigns, and work with communities/schools.
- Effective water saving tips (see opportunity recommendations).

“"Depends on the rewards doesn't it? If it's only pennies it's like you say is it really worth it? Would it cost you more by looking?“
Smart metered, previously unmetered, England

Incentivisation and gamification (direct rewards for simple tasks)

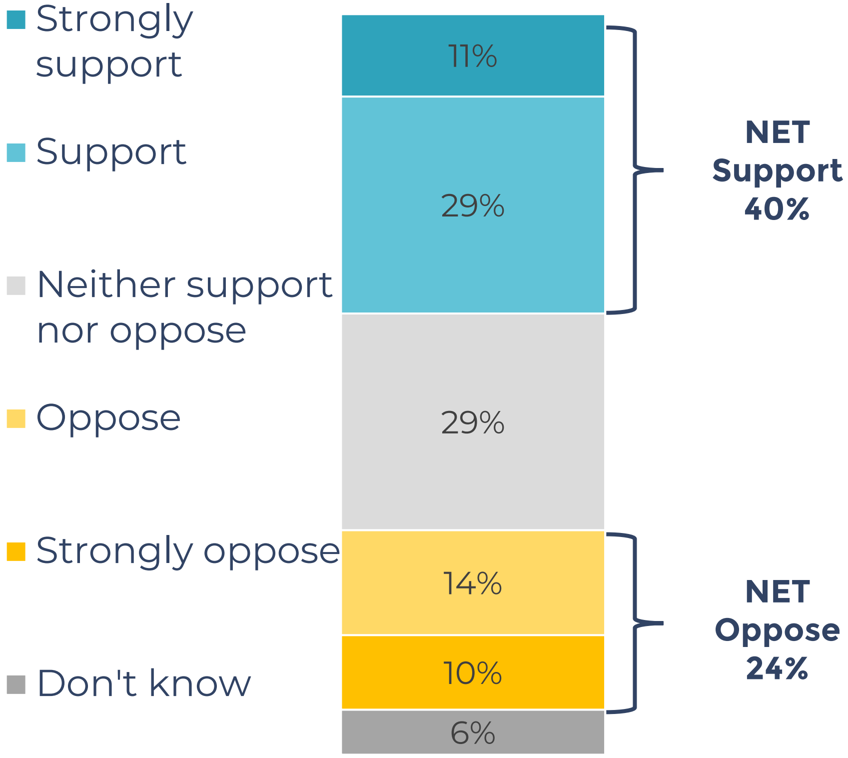
- Direct money off bill/voucher (as collecting points takes too long), with option to donate to charity, to reward activities like ordering water saving devices, and logging in. Keeping tasks simple is key.
  - Whilst customers say they would like to be rewarded for reducing usage, the way they currently use other gamification apps, and response to example tasks (see appendix), shows us that too much effort discourages them.
  - Customers also tell us that they want to see ‘free/discounted usage’ (like they have with energy schemes). But, because water is cheaper than energy (and many already feel that incentives from their efforts to reduce energy usage are not enough to motivate change), there is a risk that this would not be sufficient motivation to change behaviours.
  - Gamification also has a ‘marmite’ effect on customers; keeping things simple mitigates a risk of backlash from those who are against it (due to questions around value for money/’making apps for no reason’).

The voice for water consumers
Llais defnyddwyr dŵr

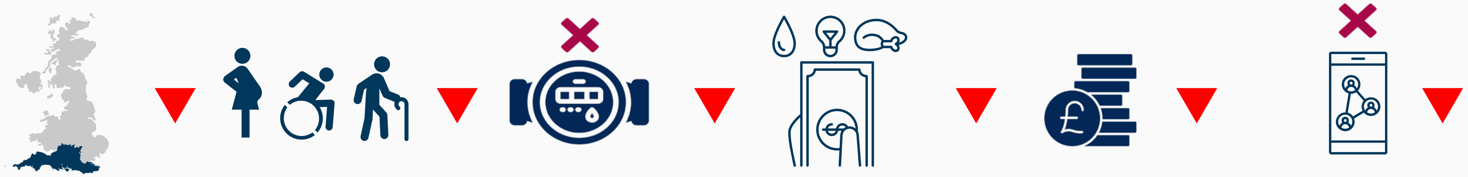
Sentiment towards variable tariffs

4 in 10 customers support the use of variable tariffs; one quarter actively oppose them

Support for water companies charging customers using a variable tariff



Those **less** likely to **support**:

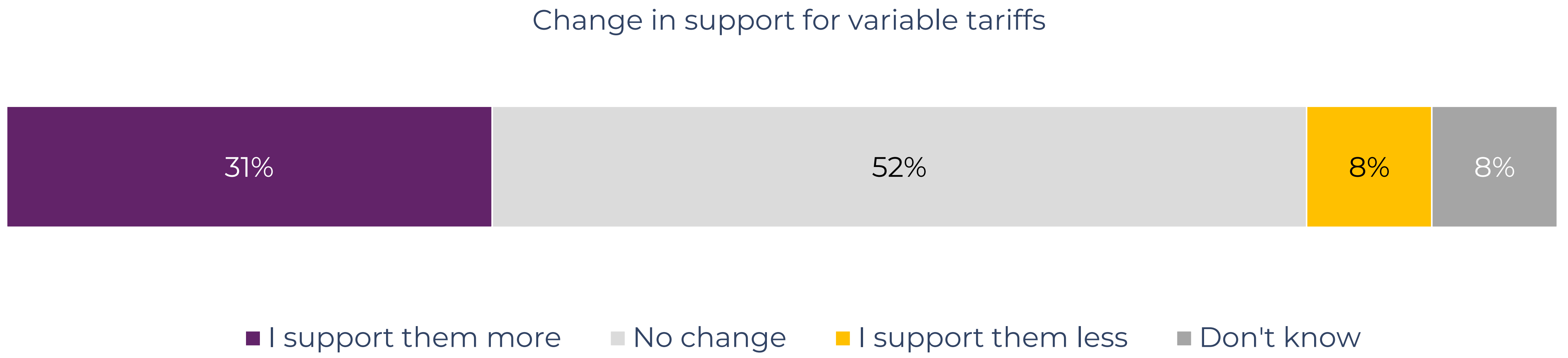


- South of England (35%)
- Vulnerable households (35%)
- Unmetered (35%)
- Connected and cost-sensitive (33%)
- Detached and cost-sensitive (28%)
- Doesn't recall receiving information about smart meters (27%)

Q20. To what extent, if at all, do you support water companies charging their customers using a variable tariff? Base: All respondents (2153)

Significantly higher / lower than the total figure at the 95% CI

Informing customers that variable tariffs are revenue neutral, has a positive, albeit small, impact on support



Q21. Knowing this, does this change how much you support the use of variable tariffs? Base: All respondents (2153)

We put the concept of variable tariffs in front of customers, to gauge their response

Here is the explanation we gave:

- As more smart water meters are installed, water companies can implement variable tariffs to manage demand.
- A variable tariff could mean that households that have high water use have a step up in their charges over a certain amount of water use. And households with low water use could have a step down as the charge could be less for essential water use like drinking, hygiene, cleaning and cooking. Seasonal tariffs are another option, with higher charges in dry summer months.
- Variable tariffs aim to reduce peaks in water use – especially when there is a lot of demand.

After exploring their initial response, we also told customers that:

- Ofwat (the economic regulator for water companies) would not allow companies to make more profit through the use of variable tariffs.
- While some people may pay more on a variable tariff (for instance, if they use more than a certain amount of water), many others will pay less. This means that overall revenue for water companies will not increase as a result of introducing variable tariffs.

Making high users pay more per litre feels unfair, and companies are not trusted to deliver this

Most of our qualitative sample are sceptical, and unsure about what constitutes a high user in the context of variable tariffs

A minority can see the logic behind a seasonable variable tariff

- Summers are increasingly dry, which increases the chance of inconvenient hosepipe bans, that not everyone complies with.
- Variable tariffs in summer could prevent hosepipe bans, and drive compliance if they do happen.
  - But outside of the summer months, the tariff feels harder to justify.

N.B. Qual participants discussed sentiment towards variable tariffs after information about water scarcity (which we know is not well known by most).

But most (including those in support of smart meters) do not support it overall

Because it feels unfair

- Metered customers already pay more if they're high users (because they pay for the amount they use).
- Large households may struggle to cut down on essential water use.
- All customers feel it is unfair to increase bills for some people, when customers are already struggling to pay.

+

Companies are not trusted enough to deliver it

- Companies are not trusted to deliver variable tariffs fairly.
  - Perception that companies will make a profit from variable tariffs, or that companies could change their minds on what level of usage is deemed frivolous.

?!

- Explaining that tariffs are revenue neutral does little to quell customer concerns, due to low levels of trust in water companies and Ofwat (strengthened by discussions during online groups).
- This sentiment is strong with water sector sceptics.

What constitutes a 'high user' is a point of confusion for many. E.g. do you need a swimming pool to qualify, or just to water your garden with a hose?

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Conclusions

Conclusions

Awareness and understanding	Installation and billing	Engaging with data and variable tariffs
• Water companies who have been avoiding the term 'smart', to avoid the negative connotations of the energy smart meter rollout, should consider the risks this poses to consumer understanding. • Companies should focus on delivering effective communications in order to drive greater acceptance of the rollout. Leak detection, fairness of consistent customer charging, and data availability appeal to customers. • Communications should support audiences to understand the likelihood of bill increase. Real / local stories are likely to appeal more to resistant audiences than company messaging.	• Increased multi-channel communications and community engagement could help counter low awareness and increase support. • Companies should consider prioritising resource on supporting these audiences with the transition to smart metered billing. • Companies should provide proactive communication about continuous flow and high use to counter potential for bill shock. • Customers identify installation as a key moment to educate about supply pipe responsibility and resolving leaks	• Companies should develop one well executed and communicated incentive, rather than a complex water saving activity platform. • Companies should ensure usage data is in a one-stop shop (with web account available), showing cost and integrated water saving tips. • Companies should continue careful communication and pilot trials to be able to demonstrate positive lived experience of variable tariffs.

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Appendices

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Appendices content

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Barriers to behaviour change

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Behaviour change journey: barriers to customers engaging with their smart meter data

The COM-B model is based on the theory that, for an individual to carry out any behaviour (in this case, engaging with smart meter data to help them change their water use habits), they must have capability, opportunity and motivation.

Capability + **Opportunity** + **Motivation** = **Engaging with data to change habits**

Capability: Is someone in the target audience *able* to engage with their data? e.g. physically or mentally capable of this.

Opportunity: Does someone in the target audience *have the chance* to engage with their data? e.g. practical constraints, such as time and money

Motivation: Does someone in the target audience *want* to engage with their data? e.g. think it is a good use of their time.

Based on Michie et al, 2011.

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Capability barriers

Understanding of usage data

- Where company data does not show financial impact (and, to a lesser extent, household comparisons), many customers struggle/expect to struggle to grasp the relevance of their usage data.
    - Whilst some people are detail orientated, and like seeing the information out of interest, others expect to feel overwhelmed by graphs unless it directly helps them save money or spot problems.
- When prompted to look, fully smart customers can find their usage information, and toggle between weekly/monthly/yearly data.
    - A minority find this more difficult, and (would) look at their data less often as a result e.g. difficulties finding where the data is, or toggling to hourly usage data (this could be because this information is not available, or difficulties navigating the website)

Understanding how to set up an online account and access data

- Many customers just pay their bill, and have never looked on their water company website, or set up an online account.
- Even those that have an account are unlikely to look through it.

Digitally disadvantaged are especially unlikely to have an online account, or access their usage data online if it becomes available (due to lack of awareness and/or appetite). This means they are at risk of not having the tools they need to use water wisely.

"I'm vaguely interested in how many litres of water are used, but what I care about is how much my bill is going to be."
Smart metered, previously metered, England

"I can see my usage, but it doesn't make sense to me, to be honest."
Smart metered, previously unmetered, England

Opportunity barriers: data access

Data access

- Only a minority of customers have real-time data.
  - A few customers who do access their data note that it usually lags by a few days (not real-time). This makes it less helpful in terms of spotting usage patterns.

> "I've never looked at the [company] website. When logging on [as part of my online community tasks] I couldn't find the usage."
> *Smart metered, previously unmetered, England*

> "I didn't know I could look at the usage until the call last week."
> *Smart metered, previously unmetered, England*

Awareness of data access

- Many customers with data access are not aware of this. E.g. some people found out they had data access during the research.
- Customers are highly reliant on company communications to tell them when data is available because:
  - Installation can go unnoticed (metered 'upgrades')
  - Engagement with online accounts is low (so customers are unlikely to find out what type of meter they have spontaneously).
  - Even if installation is noted, meters don't go live immediately.
- But nobody recalled receiving any information from their company on this topic – either it is not being sent out, or not being noticed.

Opportunity barriers: water saving tips

Quality and dissemination of tips

- At the point of installation, all audiences have low prior awareness of how to save water (bar turning off running taps). If this information is given to them by companies, they are likely to have low recall of it, meaning they might not know how to cut down.
- Customers don't know where they could easily find water saving tips, and most admit they are unlikely to follow up with links sent by companies or proactively seek information on this topic unless they are worried about their bill.
- Customers say that tips companies currently send aren't effective, because they aren't personalised or helping them make sense of which habits have the most impact (e.g. some note mentions of reducing hosepipe usage when they don't have a garden).

Awareness of support available

- Water saving audits and devices are popular with those who received them, but awareness of them is low (finding out about them currently requires 'digging' on the website).

"I never hear anything about saving tips. They don't advertise it anyway, anywhere. All I get is this bill once a year. "
Unmetered, England

"It says baths often use more water than showers, and take the 4 minute shower challenge. And that's literally it."
Metered, England

Motivation barriers

Motivation to look at data

- Customers who check their data find it makes them more conscious of their usage, but engagement drops off over time if bills remain stable or decrease, with customers tending to/expecting to only have a quick look when receiving their bill.
    - Checking is most common when customers (particularly unmetered customers) first make the switch (to see if it costs them more).
    - Engagement dropping off is even more common for below average users (who find out about this on their bill).
- Cost-focussed customers are more likely to look at their data and tweak habits to try and decrease their bills, even if they have not gone up with the switch.
    - E.g. using watering cans over hoses, taking shorter showers/cutting down on baths, and ordering water butts/water saving devices.

Motivation to cut down

- Having a portal to access data is not enough in itself to encourage customers to engage. This is because motivation to cut down is generally low, as:
    - Core routines like showering and washing are seen as hard to cut.
    - Water costs less than energy (so the financial motivation to do so is low).
    - People have busy lives and 'better things to do'.

Unmetered audiences tell us that they don't want to cut down but are likely to consider it for financial reasons if they move to a meter (smart or not).

I assume that you might look it out of interest for a bit, and then get bored quite quickly, because it was like that with the electric one. "
Unmetered, digitally disadvantaged, England

"I feel like the water we use is a necessity, we don't waste it really, so I can't imagine it's going to change very much."
Smart metered, previously unmetered, Wales

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Additional quantitative insight

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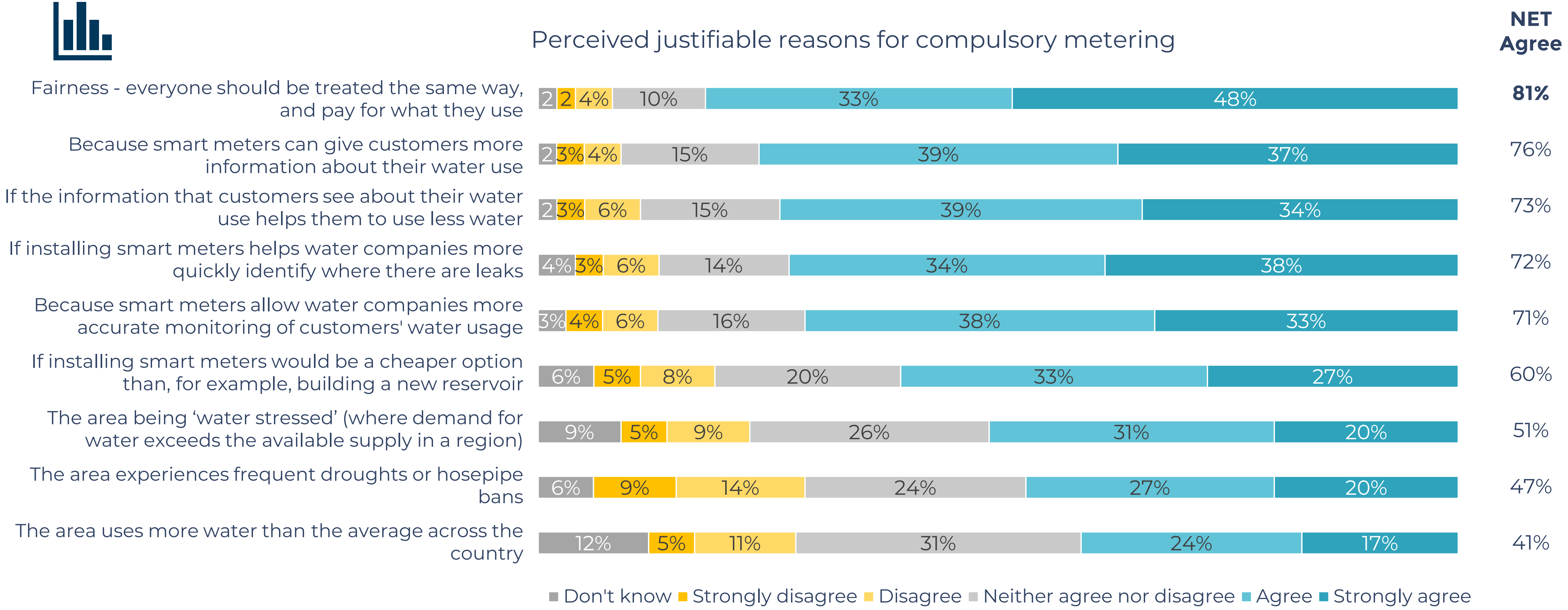
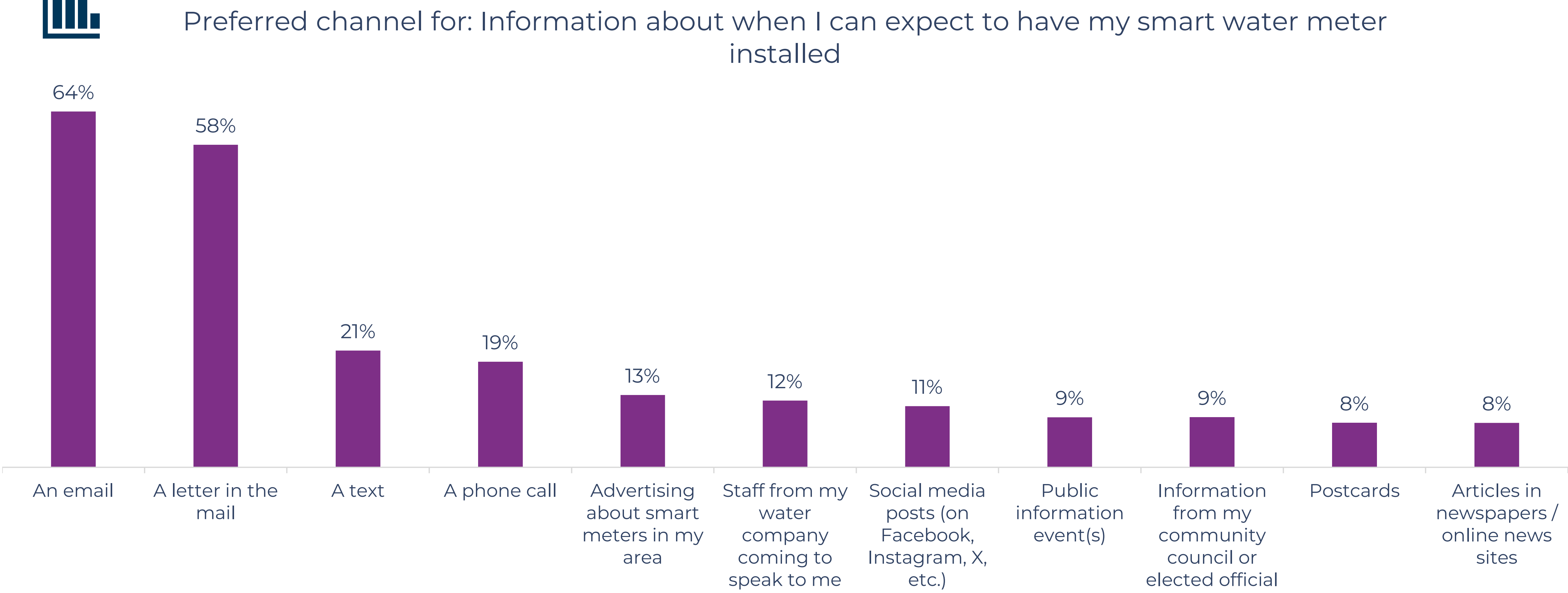
Cost factors (fairness, usage monitoring) are seen as more justifiable reasons for compulsory metering than environmental factors like water stress



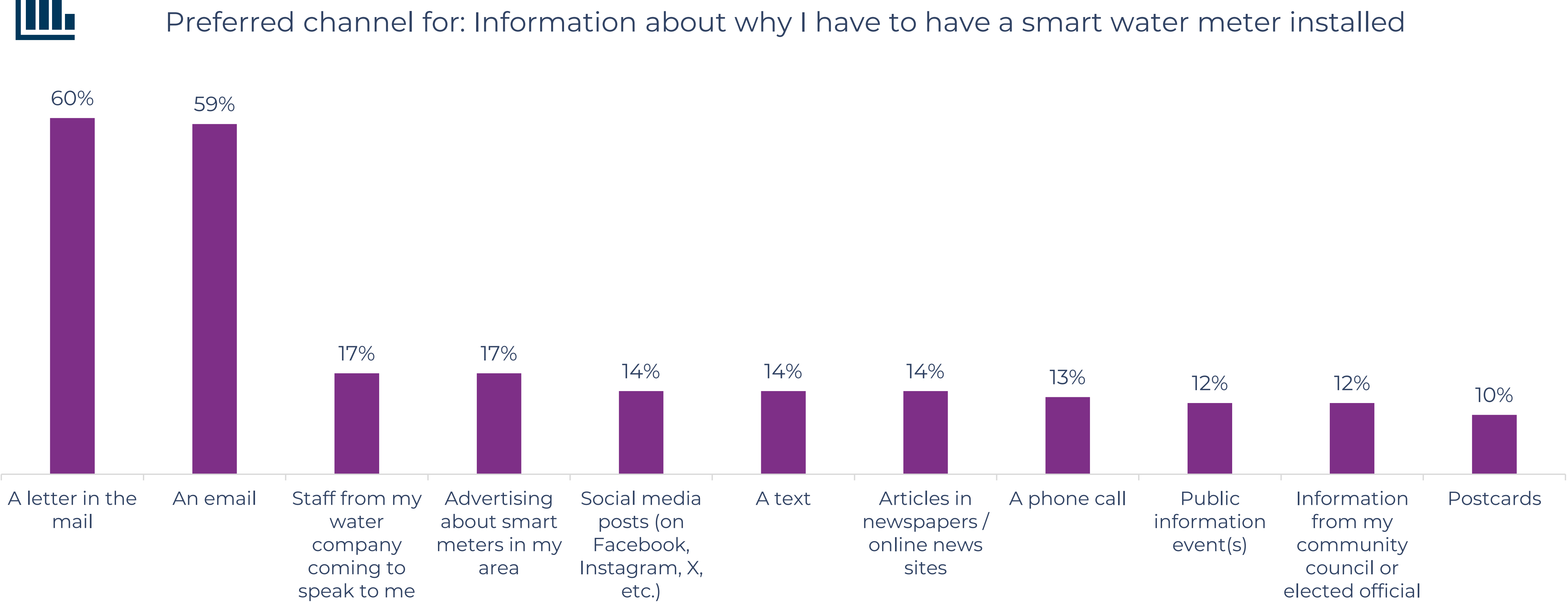
Q11. For customers of some water companies, smart water meters could be compulsory (i.e. all customers will be required to have a smart water meter). To what extent do you agree or disagree that the following are justifiable reasons for water companies to roll out compulsory metering? Base: All respondents (2153)

Preferred channels for information (1)



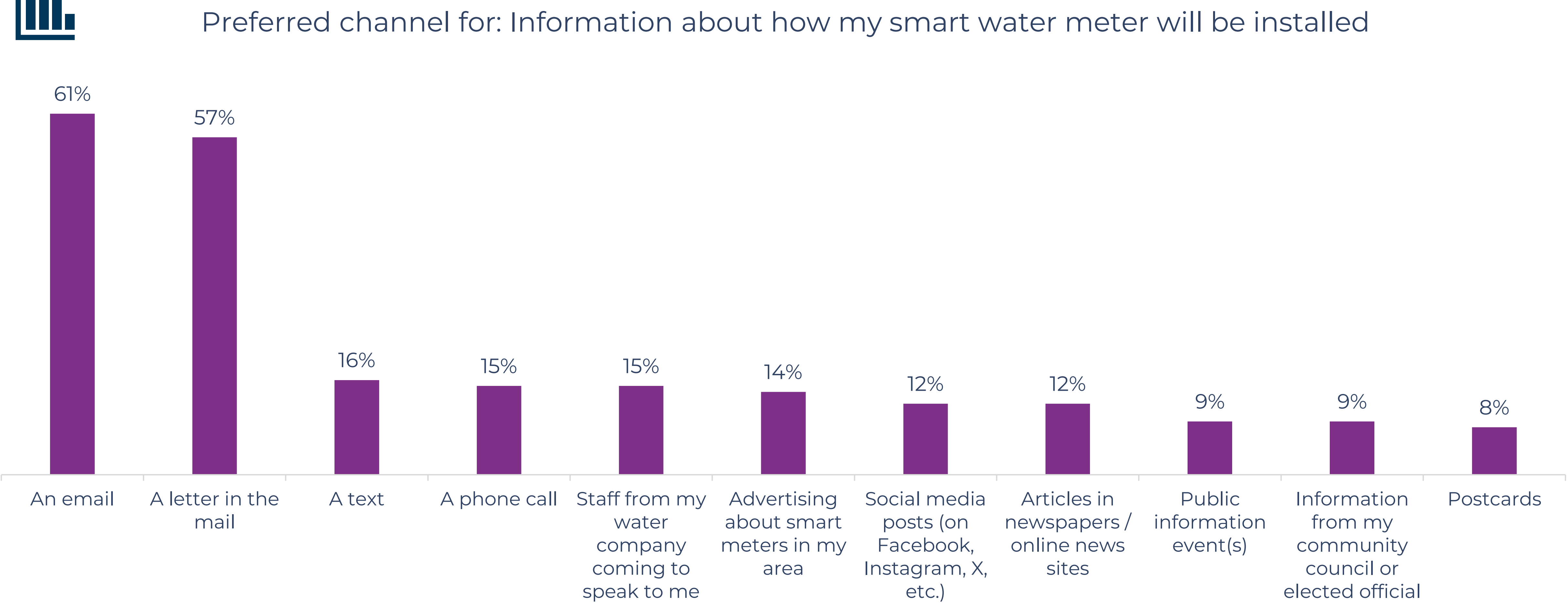
Q19. Information about when I can expect to have my smart water meter installed: And how would you prefer to receive information about each of the following from your water company? Base: All who selected 'Information about when I can expect to have my smart water meter installed' at Q18 (924)

Preferred channels for information (2)



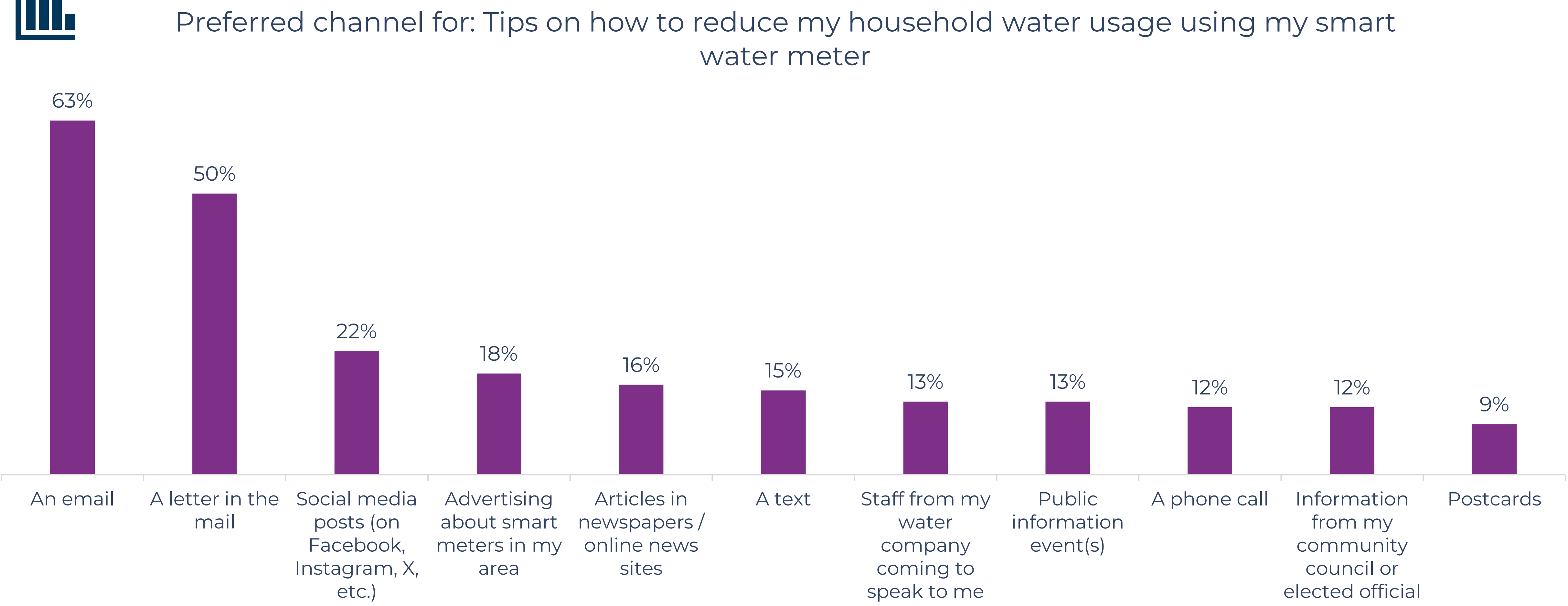
Q19. Information about why I have to have a smart water meter installed: And how would you prefer to receive information about each of the following from your water company? Base: All who selected 'Information about why I have to have a smart water meter installed' at Q18 (759)

Preferred channels for information (3)



Q19. Information about how my smart water meter will be installed: And how would you prefer to receive information about each of the following from your water company? Base: All who selected 'Information about how my smart water meter will be installed' at Q18 (920)

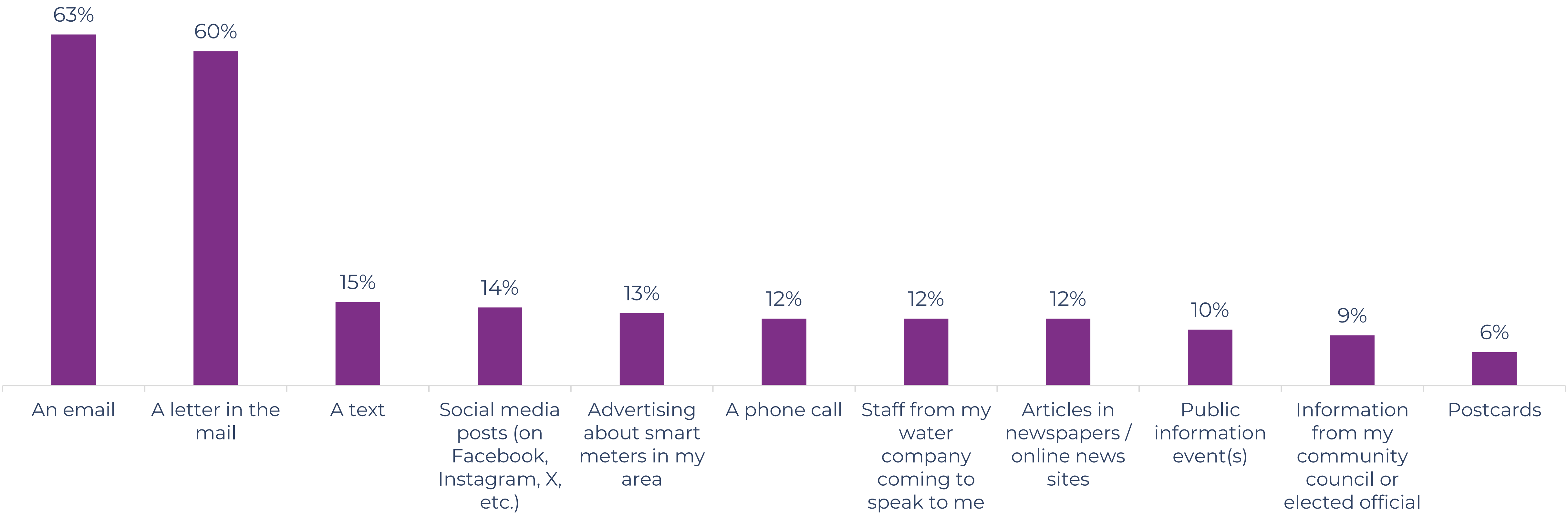
Preferred channels for information (4)



Q19. Tips on how to reduce my household water usage using my smart water meter: And how would you prefer to receive information about each of the following from your water company? Base: All who selected 'Tips on how to reduce my household water usage using my smart water meter' at Q18 (896)

Preferred channels for information (5)

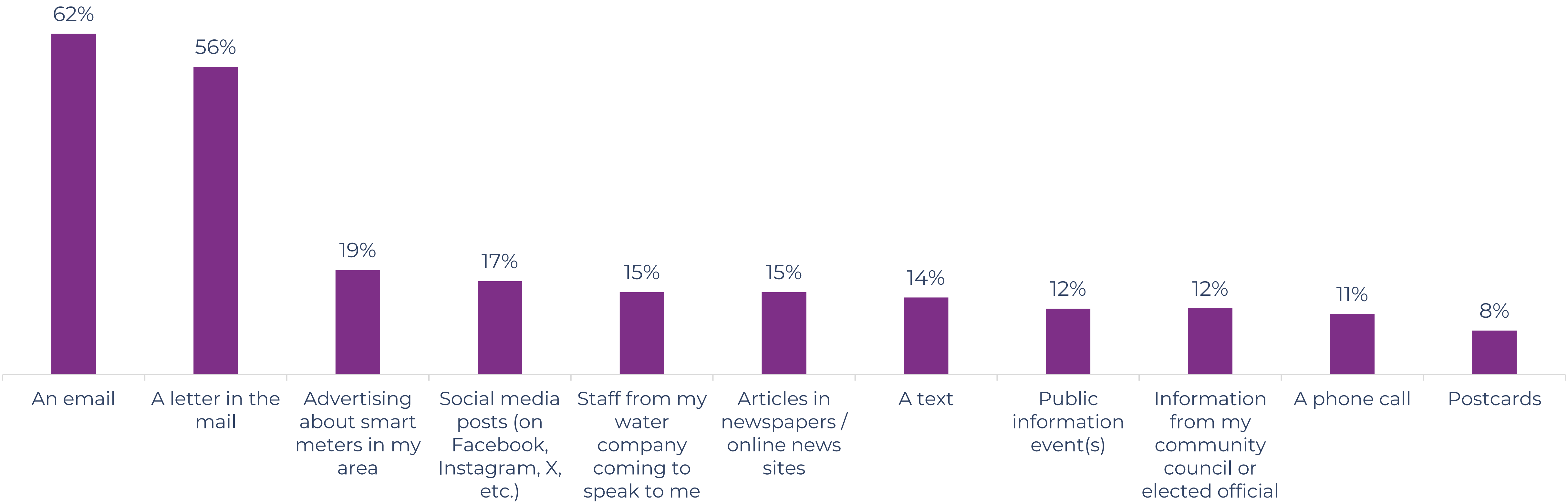
Preferred channel for: Information about how my smart water meter may impact my bills



Q19. Information about how my smart water meter may impact my bills: And how would you prefer to receive information about each of the following from your water company? Base: All who selected 'Information about how my smart water meter may impact my bills' at Q18 (1128)

Preferred channels for information (6)

Preferred channel for: Information about the benefits of having a smart water meter



Q19. Information about the benefits of having a smart water meter: And how would you prefer to receive information about each of the following from your water company? Base: All who selected 'Information about the benefits of having a smart water meter' at Q18 (1048)

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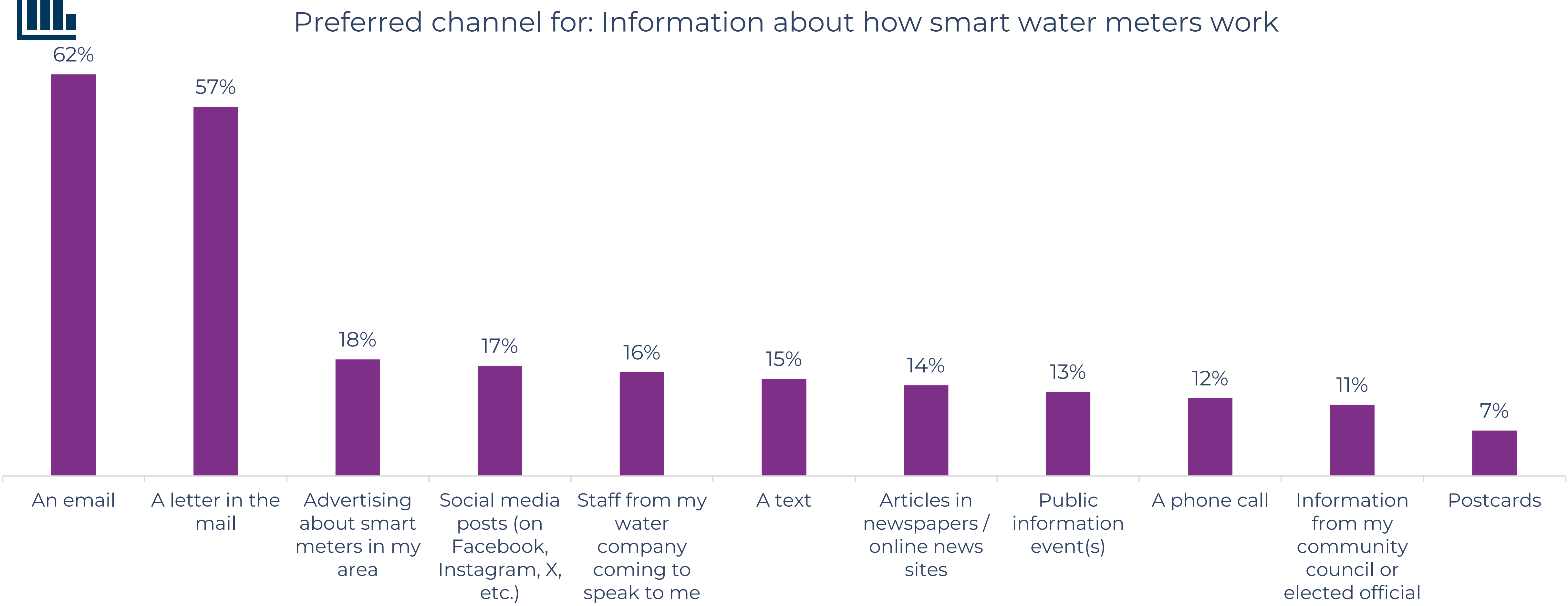
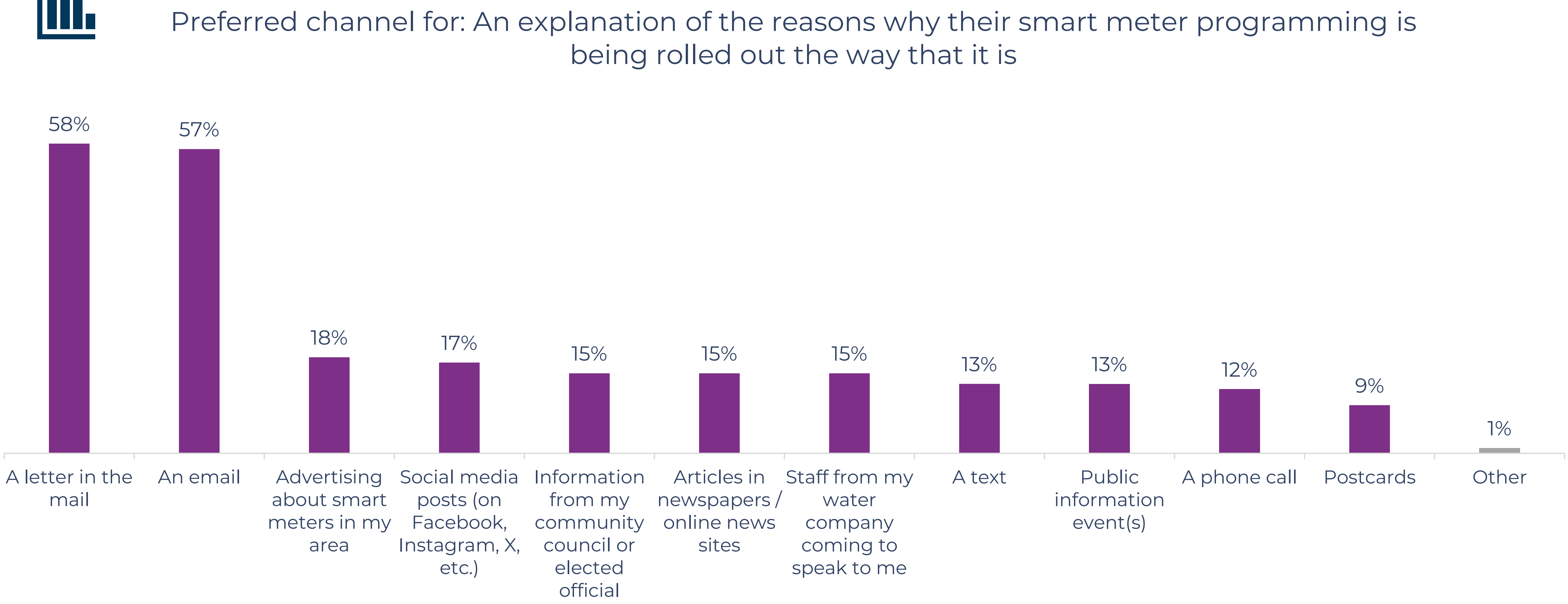
Preferred channels for information (7)



Q19. Information about how smart water meters work: And how would you prefer to receive information about each of the following from your water company? Base: All who selected 'Information about how smart water meters work' at Q18 (975)

Preferred channels for information (8)



Q19. An explanation of the reasons why their smart meter programming is being rolled out the way that it is: And how would you prefer to receive information about each of the following from your water company? Base: All who selected 'An explanation of the reasons why their smart meter programming is being rolled out the way that it is' at Q18 (809)

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Design: process

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Process

Event	Metering status	Focus	Format
Pre-task	All (bar DDs)	Onboarding, explore baseline attitudes, and awareness/views on smart meter rollout	Online (email, Questionpro)
Event 1	Smart capable and fully smart	Experiences and expectations of smart meter installation	Online 90 mins
	Metered	Expectations of smart meter installation	Online 90 mins
	Unmetered	Expectations of smart meter installation	Online 90 mins
	Digitally disadvantaged (2 per metering type)		Ethnographic depth 90 mins
Online community	All (bar DD)	Build on data from event 1, supply pipe responsibility, explore awareness and attitudes towards smart meter rollout further, introduce event 2 topics	Incling (5 days of activities over one week)
Event 2	Smart capable and fully smart	Experiences and expectations of smart meter post installation	Online 90 mins
	Metered	Expectations of smart meter post installation	Online 90 mins
	Unmetered	Expectations of smart meter post installation	Online 90 mins
	Digitally disadvantaged (2 per metering type		Telephone depth (30 mins)
Post event survey	All (bar DDs)	Supplement event 2 insight, explore attitudes to variable tariffs, elicit feedback on research experience	Online (email, Questionpro)

Household and vulnerable group process

Welcome & Survey	Event 1	Online platform	Event 2	Survey
Objectives & Views at start of research	Online Zoom event Focus: ideal smart meter installation	5 activities over a week: Focus: awareness and attitudes to roll-out, installation and living with a smart meter	Online Zoom event Focus: living with a smart meter	Feedback & Views at end of research
W/c 2 Feb	W/c 9 Feb	W/c 16 - 20 Feb	W/c 23 Feb	27 – 29 Feb

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Qualitative process feedback

Average score: 8.9

Overall, how would you rate your experience taking part in this project over the past few weeks? (On a scale where 0 is terrible and 10 is excellent)

Memorable positives

- Customers felt listened to and respected.
- Customers enjoyed having the opportunity to gain additional insight into the water sector context.
- Discussions were fun and interesting.
- Moderators were polite and engaging.

To be improved

- Some customers would have appreciated small breaks during discussion sessions.
- Some questions seemed repetitive, especially during the online community.

"It turned out a lot better than I thought. I did go away feeling that I gained something and learned new insights about data analytics supporting our understanding of water usage."

"I would like a bit less repetition of questions. It felt like we were giving the same answers repeatedly."

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Example stimulus

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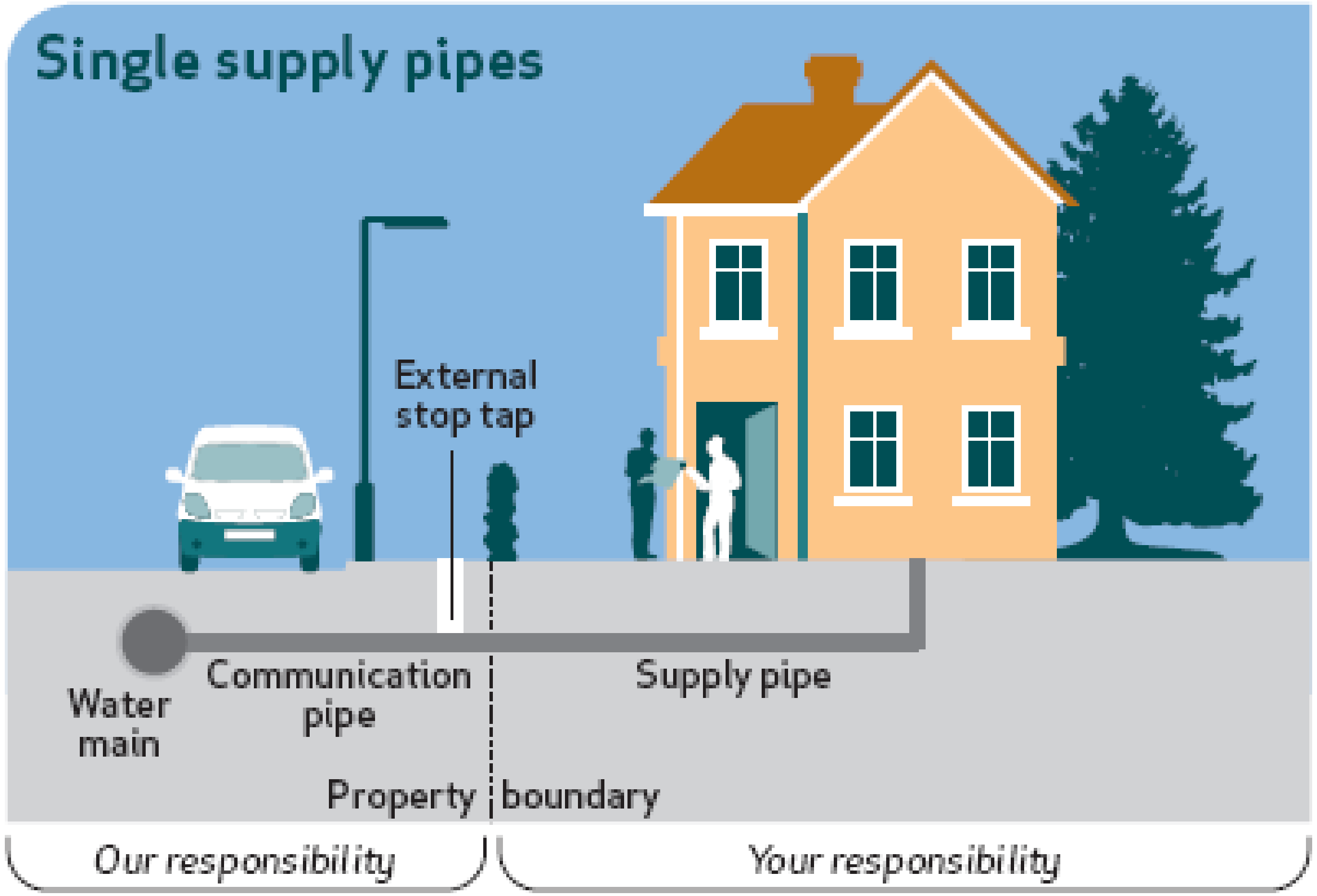
Online Community: Supply pipe responsibility stimulus



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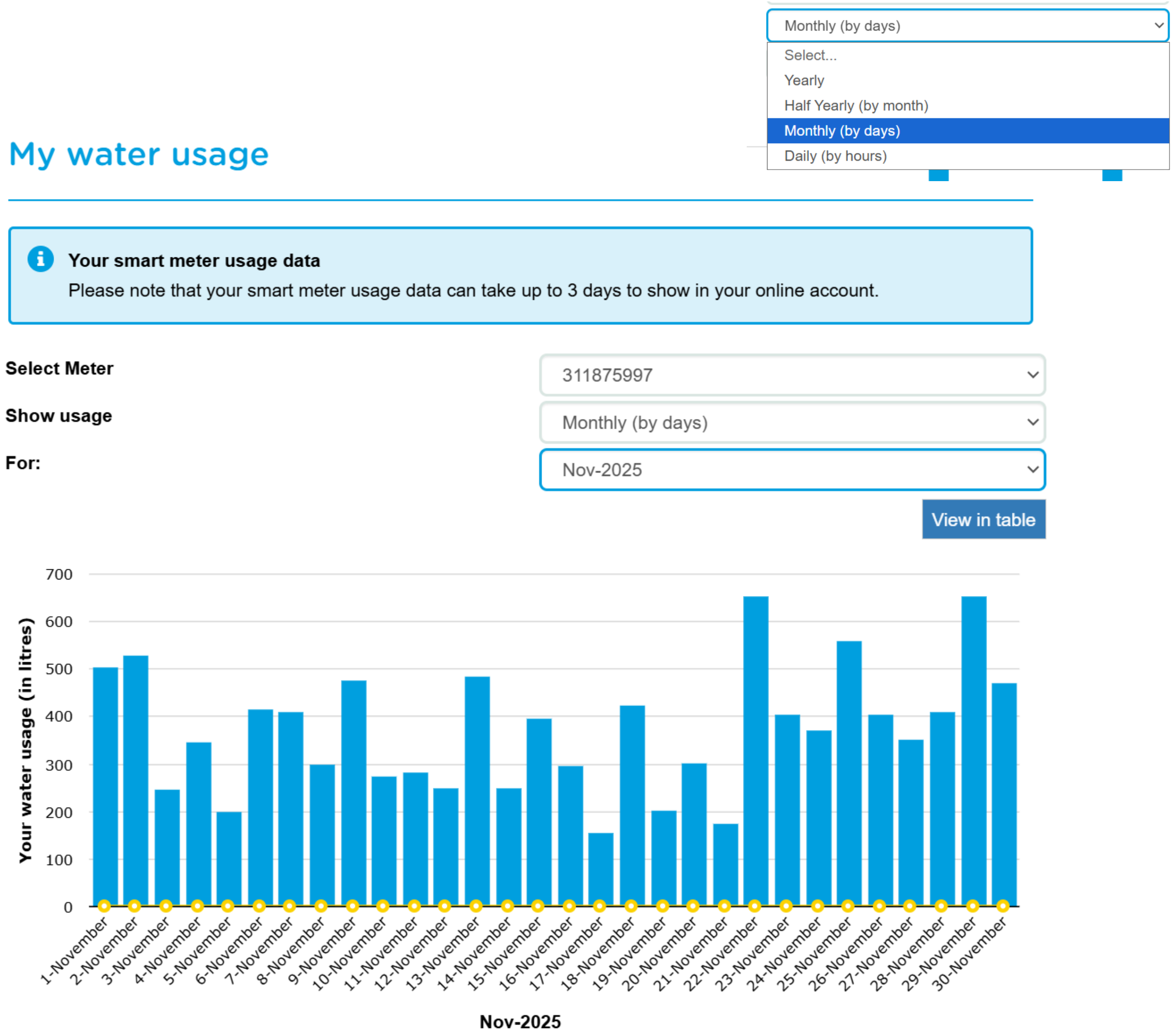
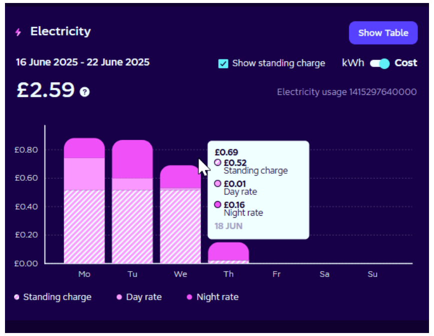
Event 2: Bill explanation stimulus

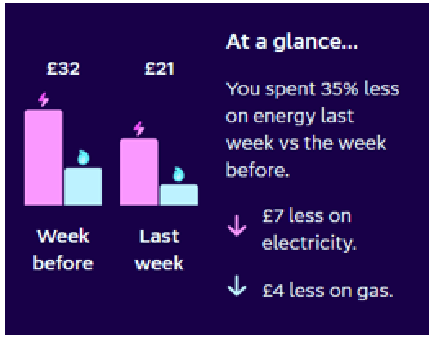

Your bill explained

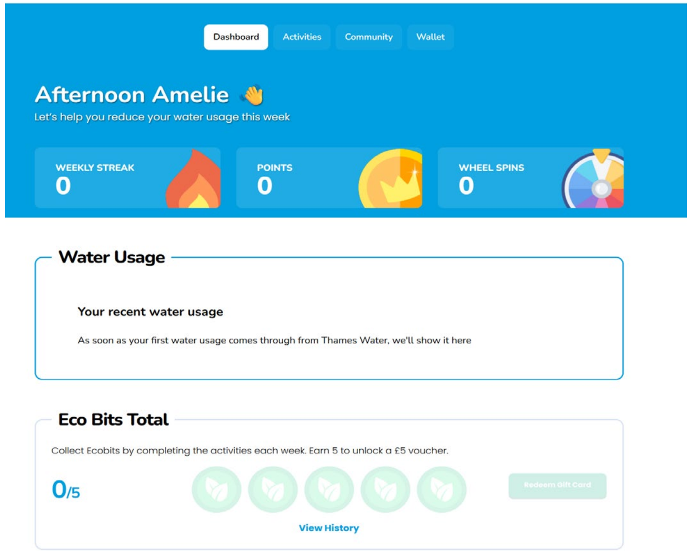
Everything you need to know about
what you pay for on a water meter

Event 2: Usage data and gamification stimulus









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Qualitative sample data

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Sample data (incl. underrepresented and vulnerable)

Sample total 54 (incl. underrepresented and vulnerable)		54
Sample criteria	All to be water (sole or joint) bill-payer	x54
Location	Majority England	x50
Geography	Urban/suburban	x39
	Rural	x15
Gender	Male	x23
	Female	x31
Age	18-24	x3
	25-34	x11
	35-44	x11
	45-54	x12
	55-64	x8
	65+	x9
Ethnicity	White	x38
	Asian or Asian British	x13
	Black, African, Caribbean, or Black British	x1
	Mixed or Multiple or other Ethnic Groups	x2
Household size/type	Small: 1 to 2 occupants	x40
	Medium: 3 to 4 occupants	x11
	Large: 5 plus occupants	x3
Water stress	Majority to be under water stress	x33

Sample data (underrepresented and vulnerable)

Vulnerable and underrepresented sample total 18		
Sample criteria	All to be water (sole or joint) bill-payer	x18
PSR status	Eligible for, or on, PSR, unless included purely re. low income status	x15
Low income	Household income less than living wage (adjusted by household size)	x10
Disabilities and long term health conditions	Physical health	x5
	Mental health	x3
	Sensory	x3
	Cognitive	x7
Digital disadvantage	Low/no internet usage	x6

Digitally disadvantaged customers

- Digital disadvantage denotes a broad spectrum of difficulties relating to using digital services, including unequal access, and limited ability and skills.
- Most digitally disadvantaged customers we spoke to during this research do get online in some ways, as offline options are reducing e.g. local banks closing.
- However, they choose to avoid going online where they can due to fear of scams, and limited knowledge about how to use digital services. Support from family members and friends is key to allow these customers to access digital services.
- These customers prefer to speak to a 'real person' when interacting with companies and receive paper communications where possible.

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Quantitative sample data

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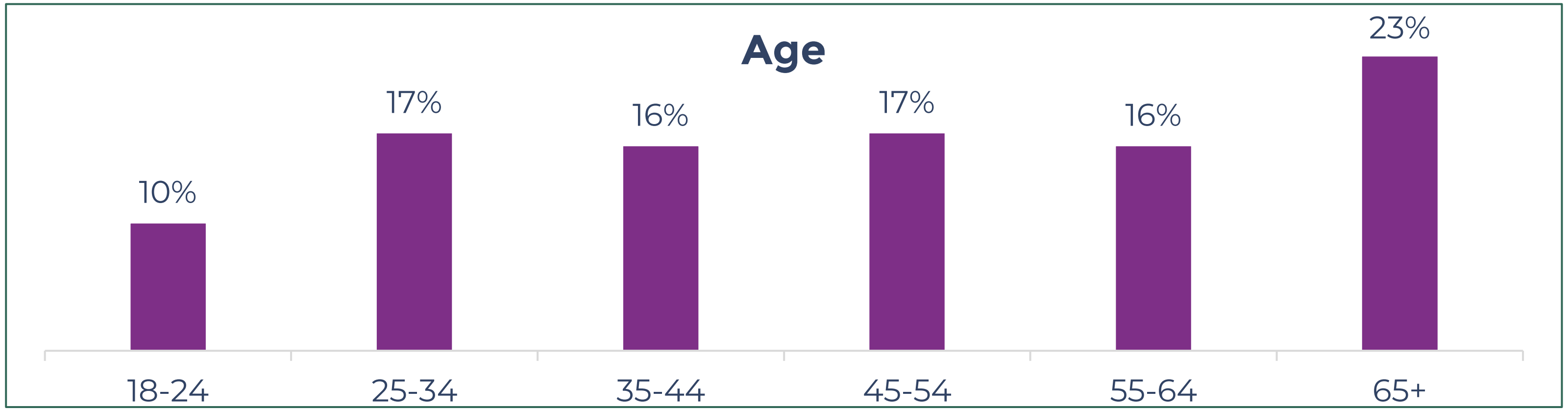
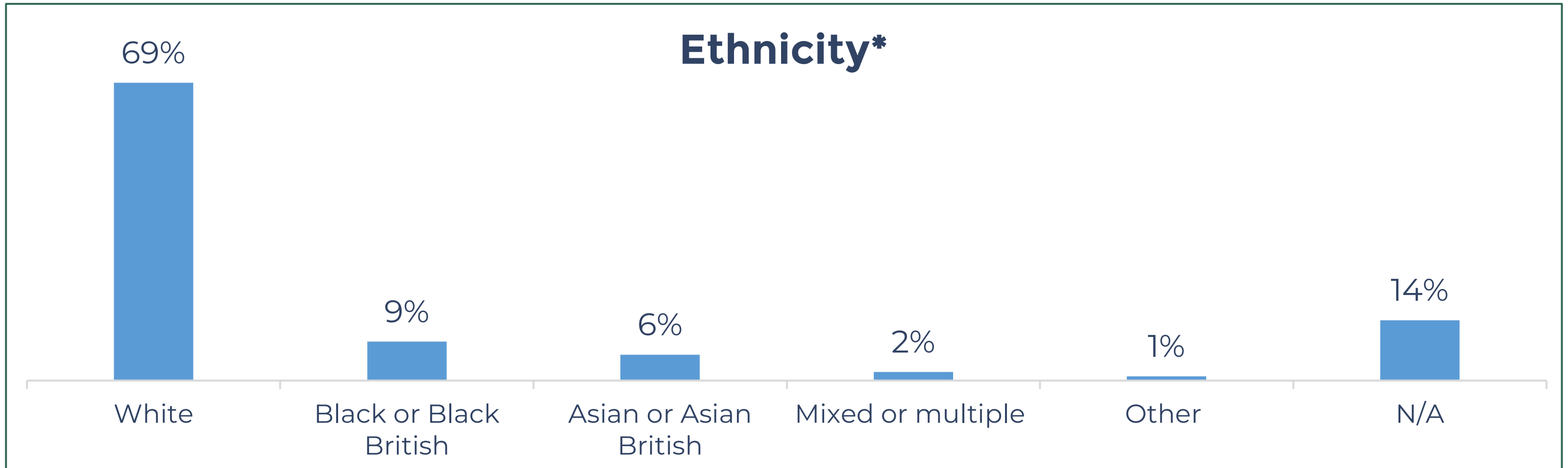
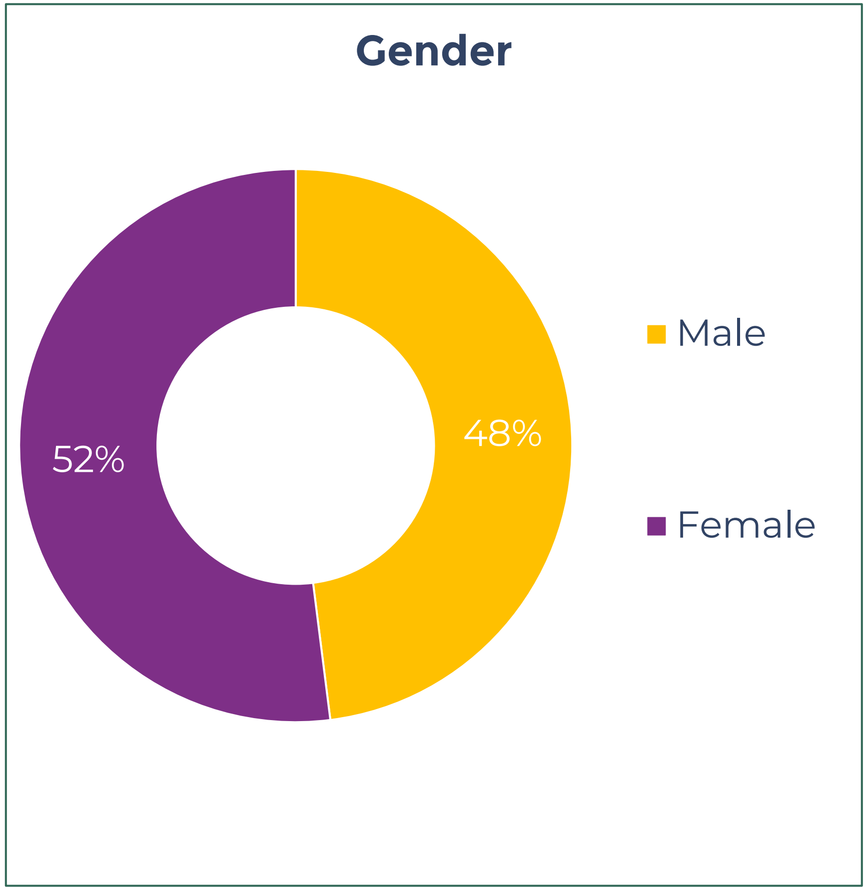
Quantitative sample profile: demographics





Ethnicity flags were taken from panel data, not asked in the survey. N/A flags are due to some panel data being unavailable



Q1. Which of the following best describes how you think of yourself? Q2. How old are you? Base: All respondents (2153)

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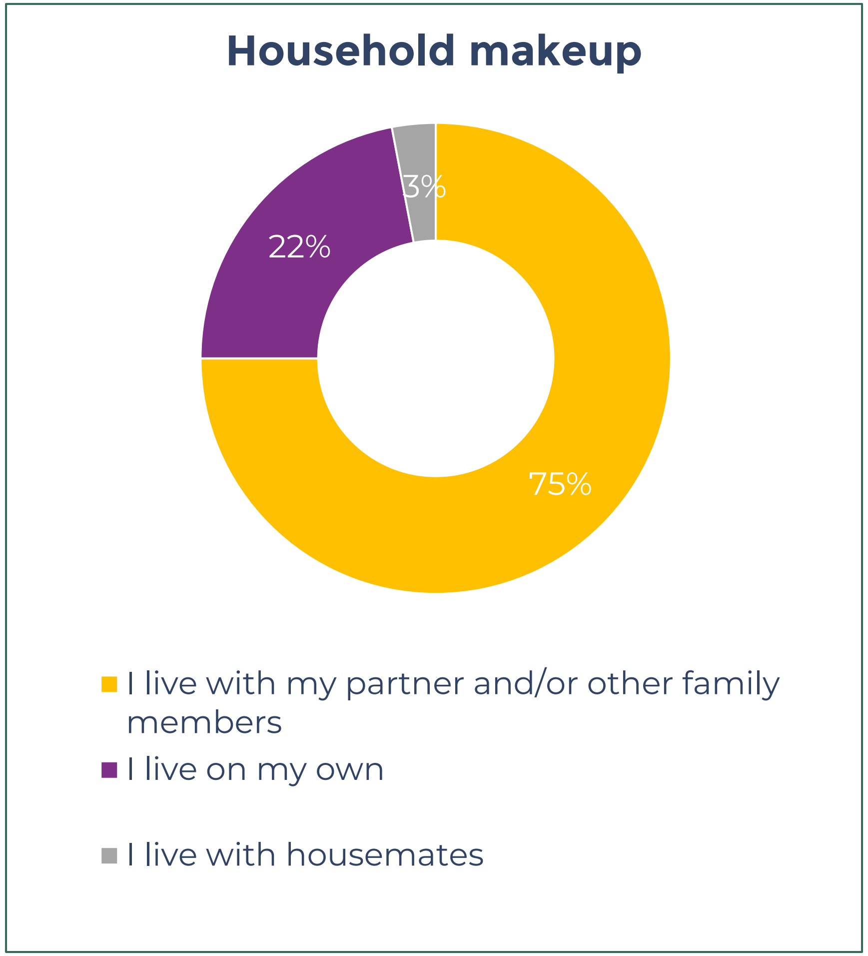
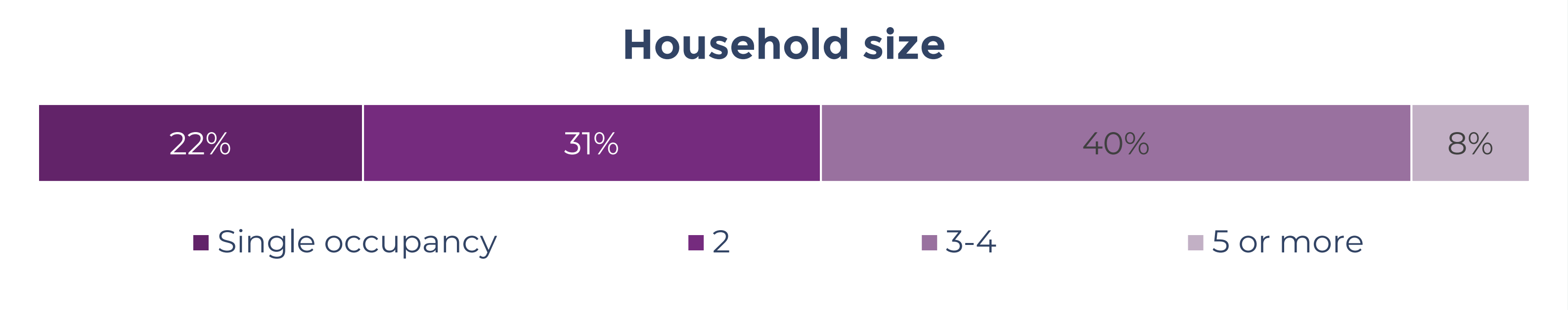
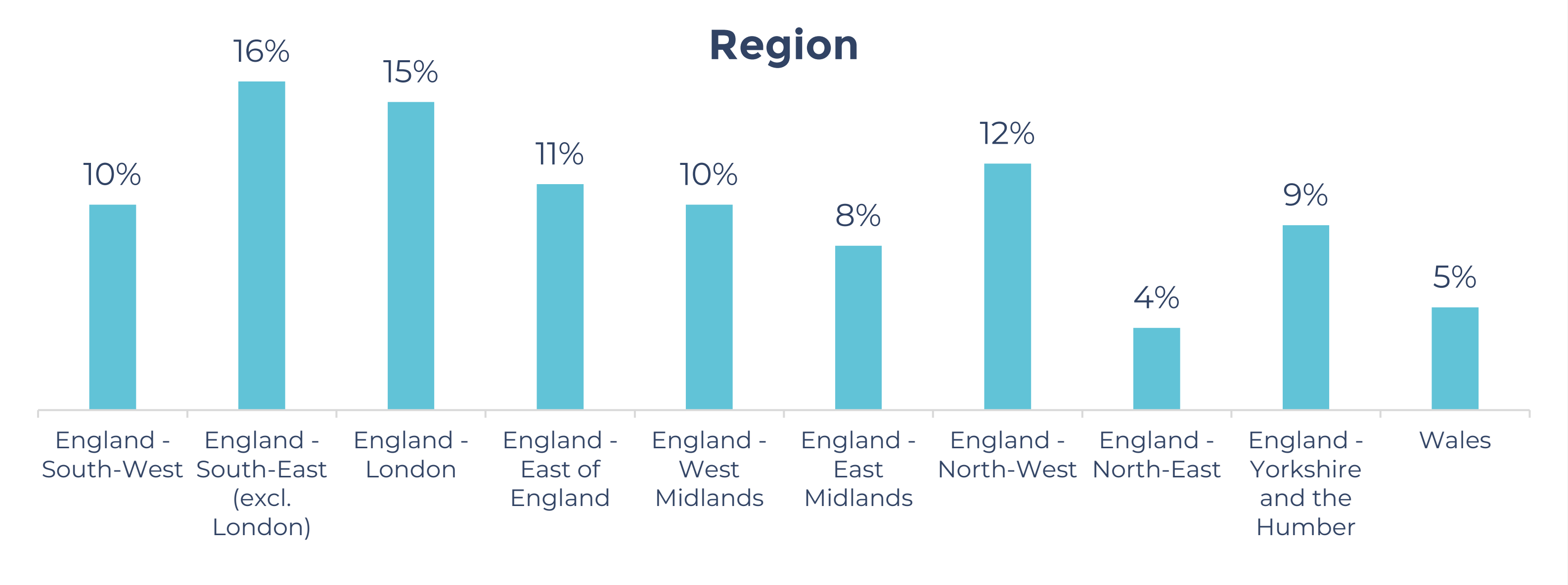
Quantitative sample profile: household status

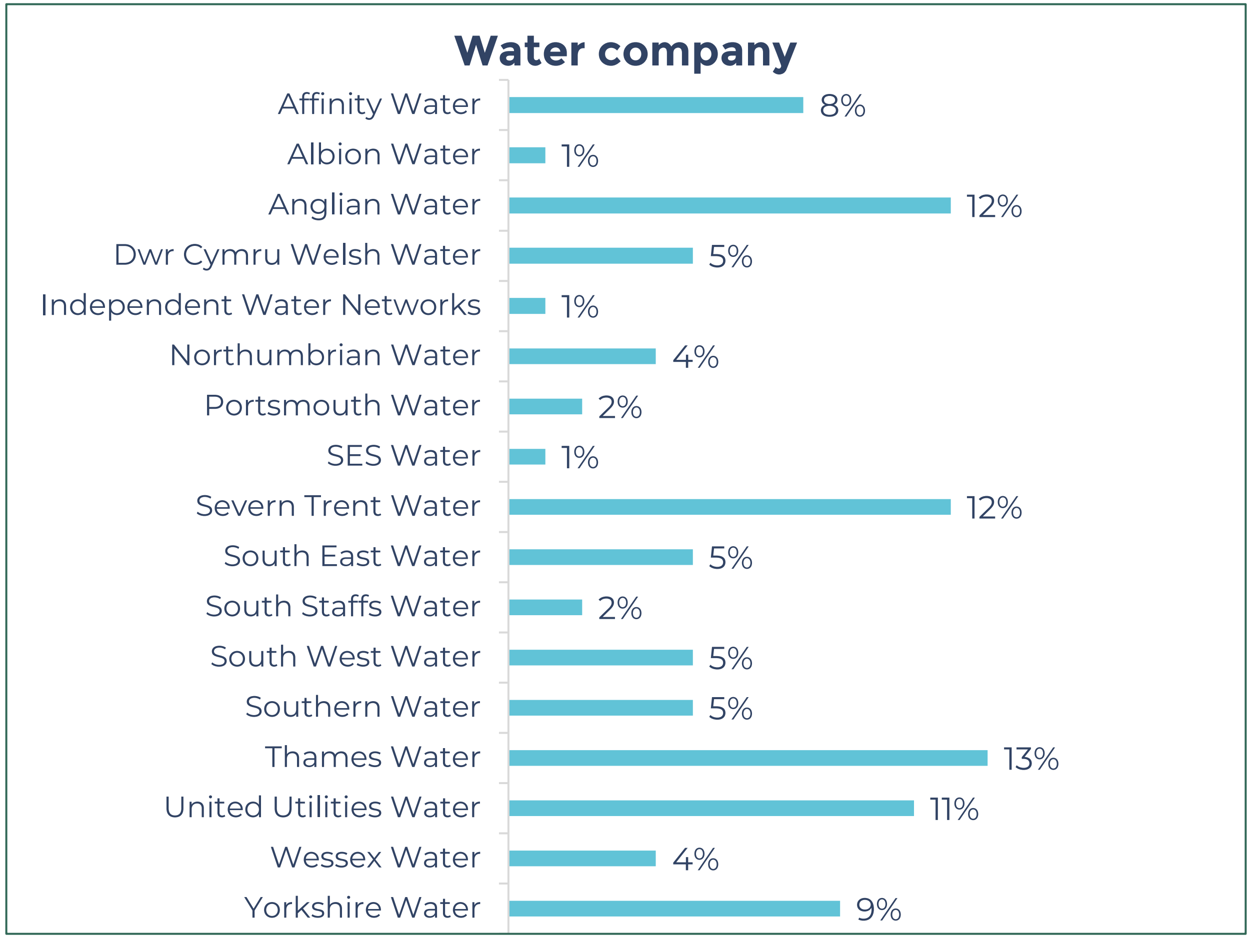






Q3. Where do you live? Q6. Which of the following best describes your household makeup? Q7. How many people, including yourself, are there in your household?
Base: All respondents (2153)

Quantitative sample profile: Water company



Q5. Who is your water company? This is the company you pay your water bill to. You may pay your wastewater bill to a different company. Base: All respondents (2153)

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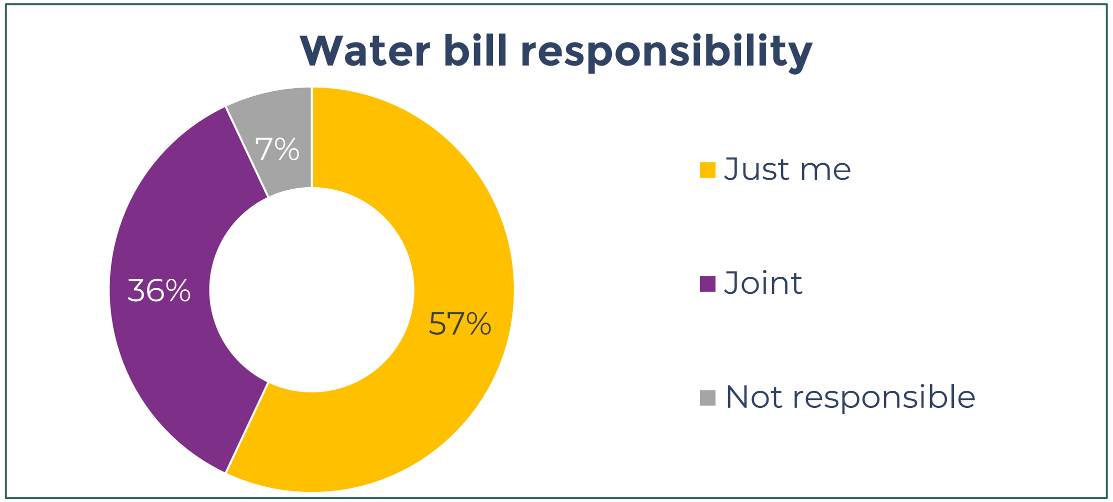
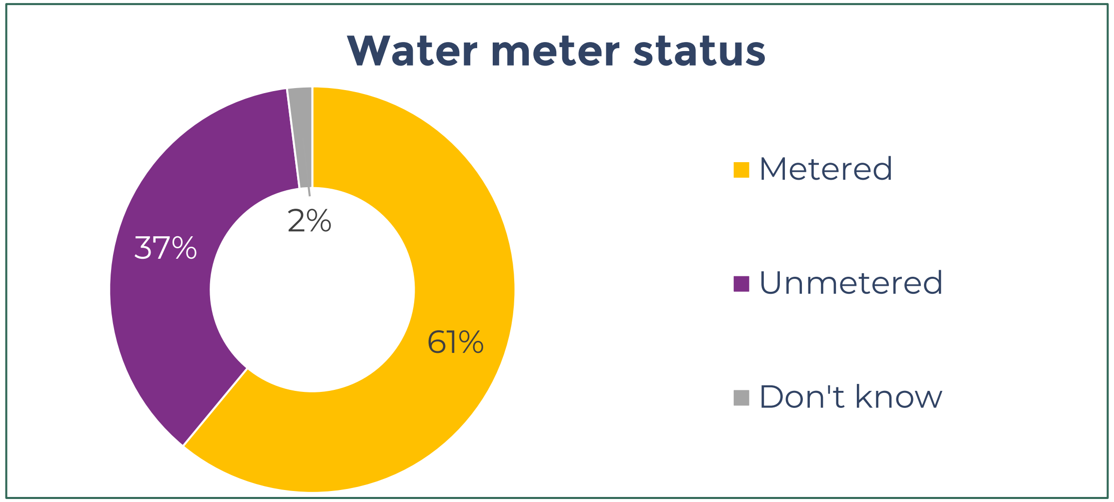
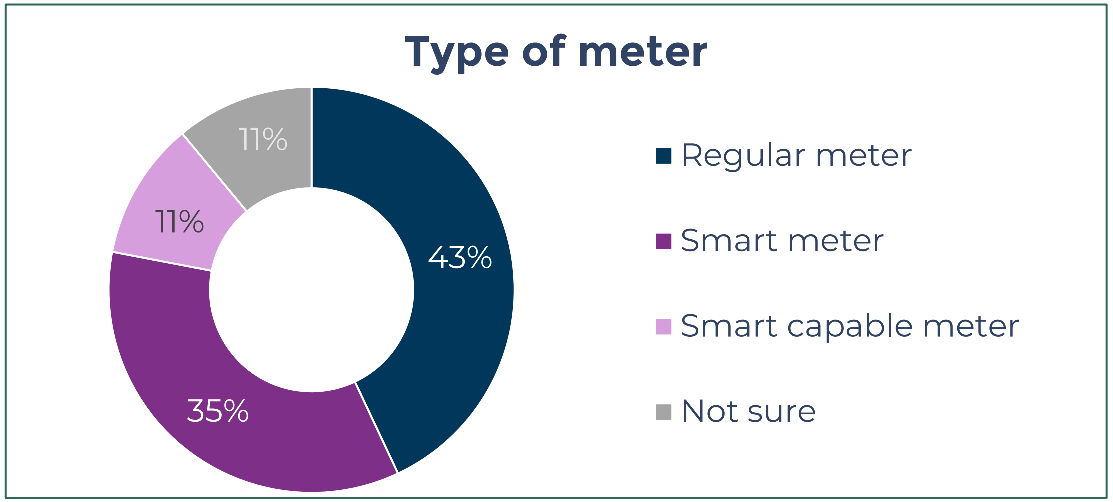
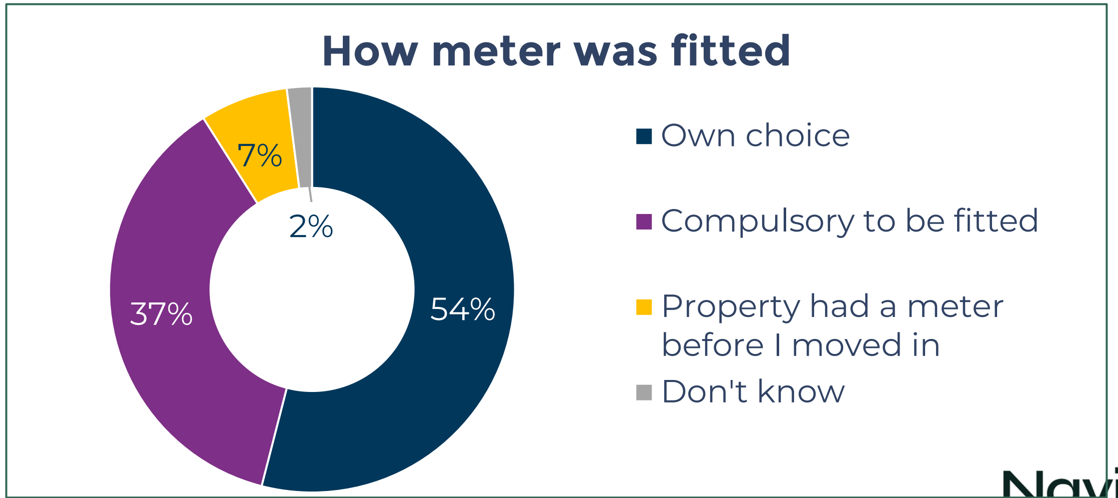
Quantitative sample profile: billing / meter status





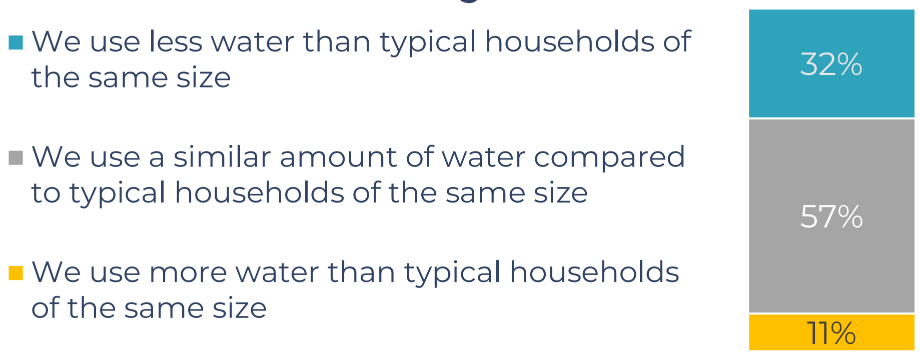




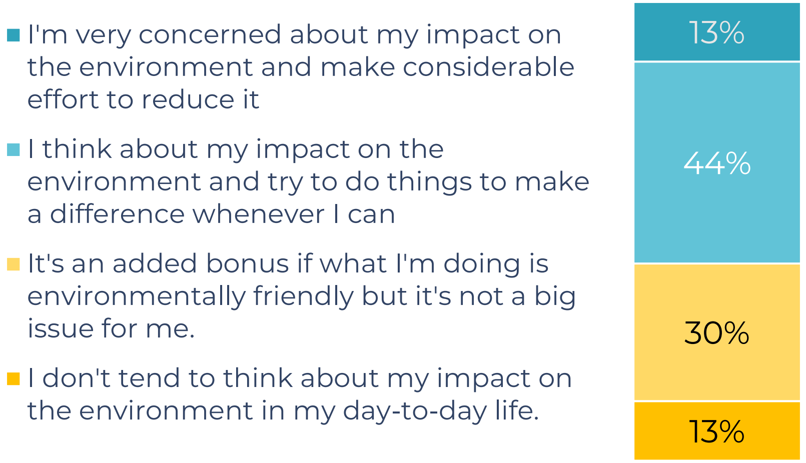
Q4. Are you responsible for paying your household's water bill? **Q8.** Does your household pay a metered or unmetered water bill? **Q9.** Which of the following statements best describes the type of meter that you have? **Q9a**. Did you choose to have your new water meter fitted, or did your water company make it compulsory to have it fitted? Base: All respondents (2153)

Quantitative sample profile: environmental / financial attitudes

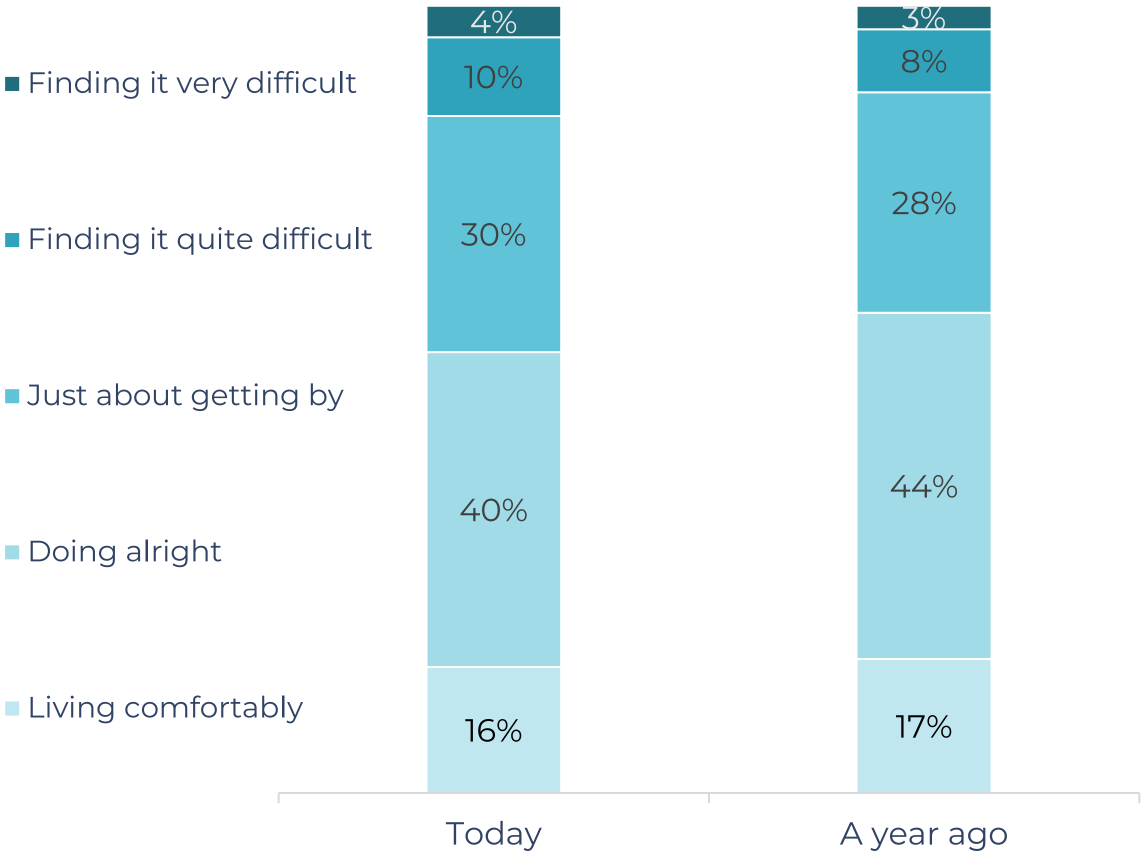
Water usage behaviour



Environmental attitudes



Household finances



Q22./Q23. Overall, which of these statements best describe how you are managing financially right now / a year ago? Q24. Thinking generally about how you make decisions about what to buy, how to travel, how to live your day-to-day life - which of these descriptions comes closest to describing you? Q25. How do you think that your household water usage compares to other households of a similar size? Base: All respondents (2153)

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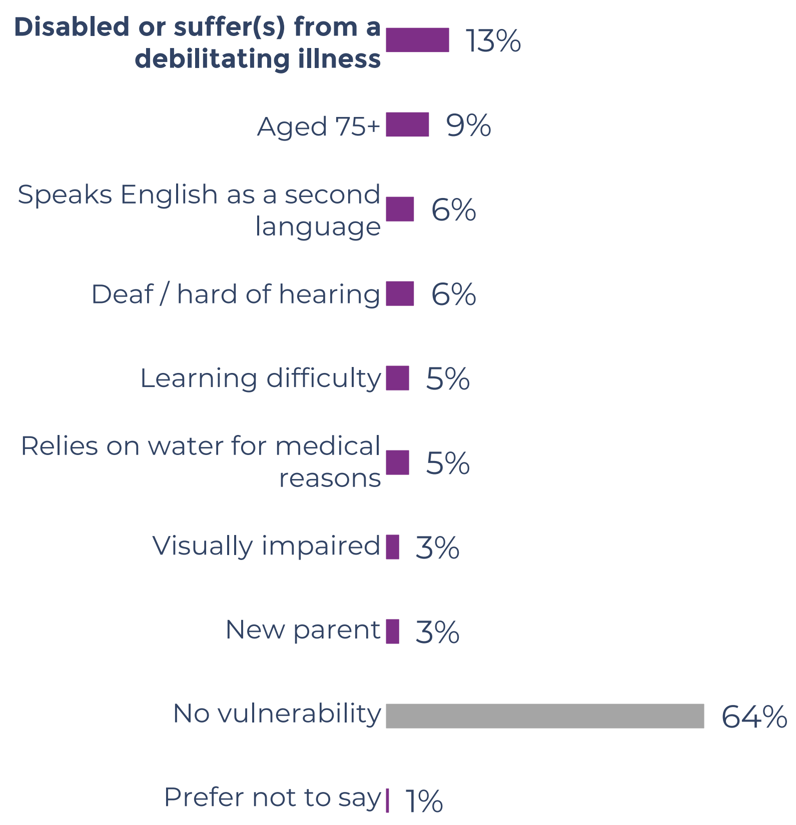
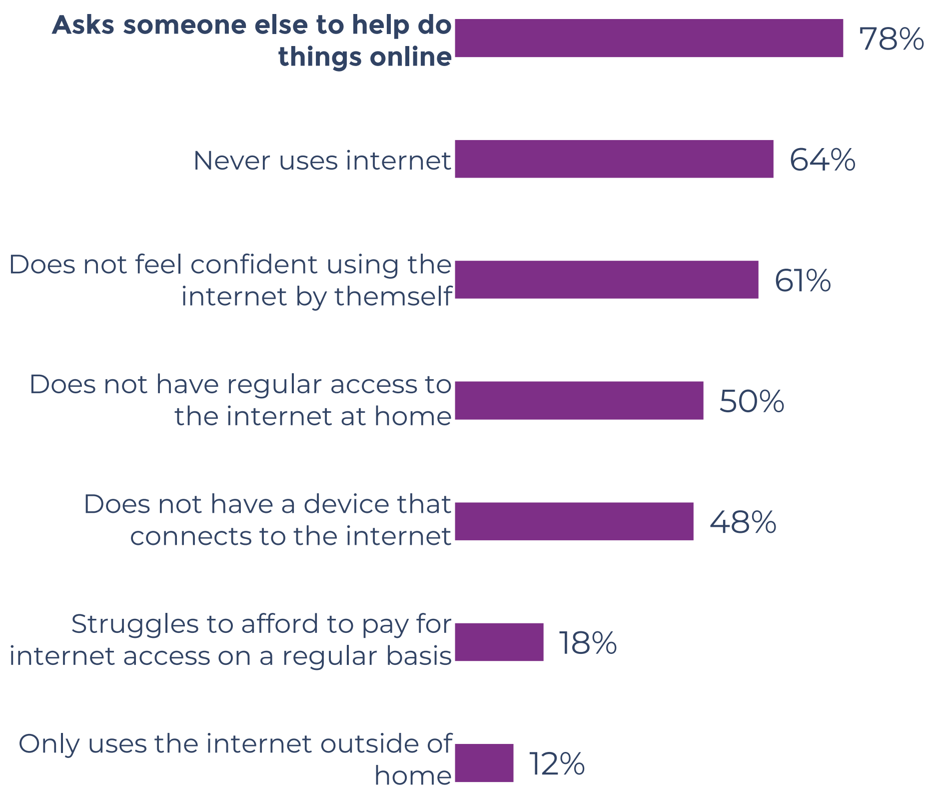
Quantitative sample profile: vulnerability / digital disadvantage

Vulnerability



Digital disadvantage



D. Which of the following apply to you? Base: Those digitally disengaged (50) QV. Which of the following apply to you? Base: All respondents (2153)

Defining the environmental typologies

Q: Agreement with current financial wellbeing:

a. Living comfortably
b. Doing alright
c. Just about getting by
d. Finding it quite difficult
e. Finding it very difficult

+

Q: Agreement with environmental attitudes:

a. I don't tend to think about my impact on the environment in my day-to-day life.
b. It's an added bonus if what I'm doing is environmentally friendly but it's not a big issue for me.
c. I think about my impact on the environment and try to do things to make a difference whenever I can (i.e. I make green choices but ideally this doesn't cost me more in money or effort).
d. I'm very concerned about my impact on the environment and make considerable effort to reduce it (e.g. I am prepared to spend more time, effort and/or money in order to make green choices).

Segment	Definition
Connected and managing	Living comfortably / doing alright + I'm very concerned about my impact on the environment… / I think about my impact on the environment…
Detached and managing	Living comfortably /doing alright + I don't tend to think about my impact… / It's an added bonus…
Detached and cost-sensitive	Just about getting by / finding it quite / very difficult + I don't tend to think about my impact… / It's an added bonus…
Connected and cost-sensitive	Just about getting by/ finding it quite / very difficult + I'm very concerned about my impact on the environment… / I think about my impact on the environment…

Navigator
View things differently

CCW