

Structure of our Business Plan Submission

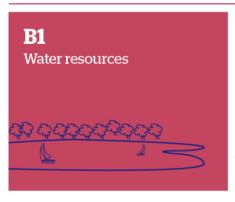
Appointee plan





Retail controls

Wholesale controls







Supporting evidence

C1

Engagement, communication and research

Engagement Summary

C2

Addressing affordability and vulnerability **C3**

Delivering outcomes for customers

C4

Bristol Water... Clearly Resilient

C5

Cost and efficiency

Investment cases

C6

Financeability, risk & return, and affordability

C7

Track record of delivery

CS

Securing Trust, Confidence and Assurance

Board Assurance Statement

Foreword Ben Newby, Chief Customer Officer

I am delighted to present our proposed Residential Retail business plan for the period 2020-2025.

Our legitimacy rests on us having the trust of our customers. In the recent UK Customer Service Index (UKCSI) our customers rated us as the most trusted Utility Company.



Maintaining customer trust is the foundation on which we have developed our business plan. We engaged with our customers to ensure they were at the heart of our plan. Our extensive engagement has resulted in a plan which when tested with customers, 93% found acceptable.

At a time when disposable income is falling, it is unsurprising that our customers tell us that keeping bills low and providing value for money are their priorities; these are our priorities too and we address both concerns.

Our plan, being both efficient and stretching, has been robustly developed through extensive consultation with customers and the Bristol Water Challenge Panel to deliver a low cost, industry leading retail business with a social conscience.

We believe in providing an easy to use, inclusive service for all. Through ongoing technological innovation, such as introducing new ways to interact with us, we will continue to keep our costs down, adapt to the evolving needs of our customer base whilst not losing sight of those who wish to continue using traditional channels. This supports our vision in providing excellent experiences for all our customers.

Using a holistic approach to vulnerability we will make sure all those eligible for our social tariffs (c12,000 more) get help and we will continue to eliminate water poverty in our supply area, whilst tripling the number supported via our Priority Services Register, so that we play our part in improving customers' lives and the communities we serve.

We will continue to listen to customers and adapt as we deliver this plan to make sure we provide excellent customer experiences at the lowest possible costs.



Ben Newby Chief Customer Officer

Contents

Fore	eword	3
Con	ntents	4
Exec	cutive Summary	6
1	Purpose of the document	8
2	Introduction	11
3	Engagement, communication and research	
3 .1		
3.2		
3.3		
3.4		
	3.4.1 Future customers	22
	3.4.2 Customers in vulnerable circumstances	22
3.5	5 Performance commitments focus groups	23
3.6	6 Business plan options research	23
3.7	7 Draft business plan consultation	24
	3.7.1 Customer views on affordability for all and value for money	25
	3.7.2 Customer acceptability of our plan	27
4	Delivering Excellent Water Experiences	30
4.1	1 Performance Commitment	30
4.2	2 Introduction	30
4.3	3 Customer Service performance	31
5	Addressing affordability and value for money	33
5.1	1 Performance Commitments	33
5.2	2 Addressing Affordability	33
5.3	3 Addressing Value for Money	36
6	Addressing Vulnerability	38
6.1	1 Performance commitments	38
6.2	2 Addressing Financial Vulnerability	38
6.3	3 Addressing Situational Vulnerability	39
6.4	4 Bespoke performance commitment – Vulnerable Customers	41
7	Residential Retail Costs and Investment	43
7.1	1 Introduction	43
7.2	2 Historical costs to run the Residential Retail business	43
7.3	3 Benchmarking	44
7.4	4 Household Retail Efficiency Modelling	46
7.5	5 Forecast Costs within the Retail Business	51
7.6	6 Activities to reduce operating cost to serve	54

7.7	Investment & Depreciation	57
7.8	Conclusion	58
8	Debt Management and Performance	59
8.1	Introduction	59
8.2	Our current approach to managing debt	59
8.3	Future activities to improves bad debt performance	61
8.4	Bad debt IPP Growth	63
	8.4.1 Bad Debt Related Forecasts	65
8.5	Conclusion	65
9	Void and "Gap" Sites - residential	66
9.1	Performance Commitment	66
9.2	Introduction	66
9.3	Void performance	66
9.4	Gap site performance	68
9.5	Void & "Gap" Sites - Business retail market	69
	9.5.1 Internal and external data to inform and validate our approach	69
	9.5.2 Incentives to retailers in the business market to identify gap sites and occupied voids	70
	9.5.3 Lessons learned from the business retail market	70
9.6	Conclusion	70
10	Securing Long term resilience - Responding to Future Challenges	71
10.	1 Physical resilience	71
10.	2 Financial Resilience	71
11	Residential Retail Margin	7 3
11.	1 Introduction	73
	11.1.1 Key economic factors	73
	11.1.2 Approach to retail margin assessment	73
11.	2 Conclusion	76
12	Residential Retail Revenue	78
12	Conducion	Qr.

Executive Summary

Bristol Water was founded in 1846 to bring fresh, clean drinking water to the area we serve, essential to the health & wellbeing of all communities. We remain an innovative company that is true to our original roots, recognising that the communities we serve, and the world in general, has changed. At the core of our business plan is a determination to find better ways to respond to our customers' expectations and the changing societal and environmental needs, whilst being cognisant of the needs of future generations.

This Price Control sets out our approach to Residential Retail activities and in particular;

- Demonstrates innovation in people, processes and technology to deliver services efficiently and effectively.
- Efficient and challenging retail cost forecast;
 - Delivering efficiency improvements of 7.6% by 2025, helping offset input price pressures of 1.95% per annum.
- Benchmarks our efficiency within the sector and other sectors where appropriate.
- Managing and reducing bad debt including effectively identifying voids and gap sites;
 - o Reducing bad debt from **3.45%** (2018/19) to **2.93%** by 2024/25 through a series of interventions.
 - o Improving our approach to void properties, thus continuing to deliver upper quartile void performance; **2%** in 2017/18 to **1.8%** in 2024/25, and our approach to "gap" properties.
- Setting an appropriate net margin for our Retail activities at 1%.
- Drawing on lessons learned from the non-household retail market.
- The residential retail component of bills falls from the current £24.56 (c13%) in 2019/20 to £20.80 in 2020/21 and £22.06 in 2024/25 (c11%). This reflects early delivery of efficiencies at the start of 2020-25 with a small element of input price thereafter.
- Sets out the outcomes and incentives that are specific to the retail control.

Being a community centric business, we also demonstrate;

- How we have co-created our plan with our customers through our most extensive consultation programme ever, engaging with over 37,000 of our customers.
- How we will ensure delivery of excellent customer experiences through our commitments.
- Customer excellence through the UKCSI satisfaction survey we aspire to be the top utility company in the UK.
- SIM historical performance and our aspirations for C-MEX.
- How this section helps to underpin all of the other outcomes and experiences delivered elsewhere in our plan.

Services to Retailers and Developers are outlined in **Section B2** and our community plans (and investments and customers' attitude towards them) is included in **Section A1**. The customer excellence ambition set out for residential customers also applies to other activities across our markets, communities, stakeholders, customers and supply chains.

- How we address affordability and vulnerability;
 - Reducing customer bills; our average bills will be £9 lower (after forecast inflation) than they were in 2015. Average residential bills will reduce by 4.5% (before inflation) in their average bill in 2020/21 (on the prior year) and then reduce by 6% (before inflation) by 2025, following smaller reductions after 2020.
 - There is a small rise in our bill in 2025 as we move into AMP 8, and the profile then reduces from there over the 5-year period.
 - Committing to providing value for money for all our customers now and in the future.
 - Increasing customer satisfaction; we want more customers to say they are satisfied with value for money and we aim to increase satisfaction to 83% (from 79%) by 2024/25, with a long-term ambition to see this figure grow to 90% by 2050.
 - Maintaining our efficient operating cost to serve performance (which we estimate is at or beyond the industry upper quartile already).
 - We will support those customers that are vulnerable;
 - **Financially**; all customers in our supply area who are eligible for our social tariffs increasing from c14,000 to c26,000.
 - A new long-term ambition is to continue to eliminate water poverty in our supply area
 - **Situationally**; trebling the number of customers on our Priority Services Register (PSR), by 2024/25 from 4,000 to c12,000.
- Creating a bespoke performance commitment; we will achieve 85% customer satisfaction among those who are receiving assistance (registered for our PSR) for the period 2020 25, with a long-term aspiration of 100% in 2040 45.

1 Purpose of the document

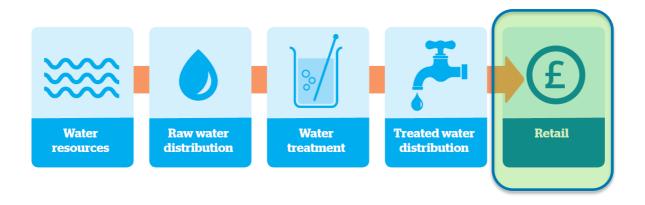


Figure 1 - Water Value Chain - Retail Business Plan areas

This document provides information on our Residential Retail price control plan. It seeks to respond to the Ofwat tests and themes that specifically relate to our retailing activities set out below. Furthermore, this document sets out our activities in relation to the performance commitments detailed in the Table 1 below, how these help us to deliver Excellent Water Experiences, as well as our approach to bad debt and residential retail margin.

IAP Test a	area	Questions	Where is this addressed in the business plan?			
Engaging customers	EC 1	What is the quality of the company's customer engagement and participation and how well is it incorporated into the company's business plan and on-going business operations?	Within this Section of our business plan a separate chapter (Chapter 3) is dedicated to our engagement activity.			
	AV 1	How well has the company demonstrated that its bills are affordable and value for money for the 2020-25 period?	Within this Section of our business plan a separate chapter (Chapter 5) is dedicated to bills being affordable and value for money.			
Addressing	AV 2	How well has the company demonstrated that its bills will be affordable and value for money beyond 2025?	Within this Section of our business plan a separate chapter (Chapter 5) is dedicated to bills being affordable and value for money.			
affordability and vulnerability	AV 3	To what extent has the company demonstrated that it has appropriate assistance options in place for those struggling, or at risk of struggling, to pay?	Within this Section of our business plan a separate chapter (Chapter 6) is dedicated to addressing vulnerability.			
	AV 4	To what extent does the company identify and provide accessible support for customers in circumstances that make them vulnerable, including proposing a bespoke performance commitment related to vulnerability?	Within this Section of our business plan a separate chapter (Chapter 6) is dedicated to addressing vulnerability.			
Delivering outcomes for customers	outcomes for OC 1 stretching are the company's proposed performance commitments and service		Performance commitments are within all chapters within the this section of our business plan.			
Securing How well evidenced, efficient challenging are the company		How well evidenced, efficient and challenging are the company's forecasts of retail expenditure, including bad debt costs?	Within this Section of our business plan two chapters (Chapter 7 & 8) address retail expenditure and bad debts.			

Table 1 – IAP tests covered within the retail section Source: Ofwat

PC	Unit	2019/20	2024/25
C-Mex (proxy - UKCSI	TBC	Top performing water Company	Aim for Top performing utility company

	Unit	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Water Poverty	%	0	0	0	0	0	0
Value for Money	%	79	80	81	82	82	83
Percentage of vulnerable customers satisfied	%	85	85	85	85	85	85
Void properties	%	1.9	1.9	1.9	1.8	1.8	1.8
Per Capita Consumption ¹	l/p/d	142	140.6	139.2	137.8	136.4	135

Table 2 - Performance Commitments Pertinent to Retail 2020/25

The residential retail outcome incentives include:

- C-MEX underperformance penalties and outperformance rewards of +/- 6% of residential retail revenues. Based on our plan revenues this amounts to +/- £10.9m over 2020-25, +/- 1% RORE. We think it is unlikely that we will outperform or underperform to the upper end of the range 80% of the time, so our central RORE range is +/- £5.5m, or +/- 0.5% RORE.
- Void properties which have a potential underperformance penalty of £0.25m to outperformance reward of £0.07m over 2020-25.
- That we have also allocated 50% of our per capita consumption outcome incentive to the
 residential retail control, recognising the role in promoting retail and water efficiency. The
 residential retail share amounts to £0.8m underperformance penalty to £0.43m outperformance
 reward, although the central RORE range is only a £0.6m underperformance penalty (c0.1%
 RORE).

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¹ Annual target – incentives set on three year average. See section C3 for details.

2 Introduction

Communities come together to create community businesses to address the challenges they face - our humble beginnings are a testament to this notion. In 1840, a government survey recorded the city of Bristol as being one of the worst in the country for devastating outbreaks of cholera and dysentery.

At this time the links between water pollution and the spread of disease were only just being made. As a consequence of the survey and its findings the Bristol Water Works Company was formed on 16 July 1846. The company's members included William Budd, a physician who helped control cholera outbreaks in Bristol, and Francis Fry of the Fry family (The family played an active role in social and philanthropic causes, especially in Bristol, as well as running its confectionery business). The original aim being, as it is today, to supply good clean drinking water with a high quality service while being value for money.

We define ourselves as a community business, which we believe has four key features, namely:

- **Locally rooted**; we serve the people in Bristol and its surrounding areas, providing good clean drinking water.
- Exist for the benefit of the local community; we are here to ensure the wellbeing of our community through the provision of good clean drinking water that is value for money.
- Accountable to the local community; we are accountable to local people, not only for the
 provision of our essential service, but to encourage our communities to have a voice and an
 input into our activities and future direction. We have facilitated this community engagement
 through our consultation process.
- **Broad community impact**; we want to have a positive impact on our local community as a whole. Whether that is through the provision of our essential service, demonstrating ways to save water (and energy), or opportunities to participate in activities at our lakes; such as paddle boarding, kayaking and canoeing at Cheddar reservoir or fishing at one of our many lakes.

We care about our customers and they care about us, which helps develop trust. Indeed, our customers told us that we are the most trusted company in the utility sector.²

In 2001 we created Bristol Wessex Billing Services Limited (BWBSL), a joint venture company with Wessex Water to manage the majority of our retailing activities. Pelican Business Services (the trading name for BWBSL since 2015) manage our metering, billing and collection operations and serve as a point-of-contact for all non-operational customer enquiries. By working collaboratively with Wessex we are able to provide our customers with a joint bill for their water and sewerage services. This approach has allowed us to address many of our customer demands in a cost efficient way. In the next reporting period, we will continue to push the boundaries of efficiency, extend our support for those in vulnerable situations, increase our revenue collection rate by 0.52% to 97.07% (reducing our bad debt levels) whilst maintaining our upper quartile "cost to serve" performance through execution of interventions that provide £3.7m (net) of efficiency over 2020-25.

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² UK Customer Satisfaction Index, July 2018

Many of our retailing activities are carried out by Pelican Business Services, though we carry out some periphery activities directly such as responding to network calls. Pelican provide the following activities:-

- Customer Service
 - Billing
 - Payment handling
 - Vulnerable customer schemes
 - Remittance and cash handling
 - Customer enquiries
- Debt Management
- Household Metering

Pelican share the same values as Bristol Water; they place service excellence at the core of their activities. Pelican are an award winning organisation and we are proud of their achievements; below is a list of the awards and recognition Pelican received during 2017/18.

- 2018 Sunday Times Top 100 Companies placed 20th
- 2017 Business Leaders Awards Customer Excellence Award (Finalist)
- 2017 UK Contact Centre Awards Contact Centre Team Leader (Winner) Health and Wellbeing Initiative (Finalist)
- 2017 Water Industry Awards People Initiative of the Year (Finalist)
- 2017 Employee Experience Awards Employee Engagement (Finalist)
- Health and Well-being (Finalist) Business Transformation (Finalist)
- 2017 Bristol Post Business Awards Customer Service Award (Finalist) Contribution to the Community (Finalist)

During 2017/18 Pelican's contact centre received 751,000 contacts; they dealt with 182,000 emails and maintained a low level of written billing complaints at 0.18% of overall billing contacts.

This section seeks to address the retail control tests set out by OFWAT noting that this section is dedicated to residential retail activities as business and developer services are covered elsewhere within our business plan.

3 Engagement, communication and research

3.1 Understanding who our customers are

Bristol Water serves 1.2 million people over an area of almost 2,400 square kilometres, from Tetbury in the north to Street in the south, and from Weston-Super-Mare in the west to Frome in the east. To help us understand our customers in more detail, we have combined our customer data with other relevant information to form six unique customer segments. We have used these segments to allow us to understand the different circumstances and behaviours of our customers and to understand how their views may differ to help us target our engagement and communications.

Safely Affluent 5%

The average age of this group of customers is 58. They have an average income of £71,000 and very few are in debt or struggling, 98% own their own home and most live in a detached house. Nearly half have children at home. Only 36% use a water meter but most are interested in saving water.

Mature & Measured 23%

This group of customers have an average age of 73 and an average income of £39,000. Only 33% are employed, but only a few are running into debt. Most of these customers own their own homes and live with only one other person. All are interested in making efforts to cut down their water usage and most are on a water meter.

Social Renters 13%

This group of customers have an average age of 59 and an average income of £19,000. Most are in debt or struggling, and only 33% are employed. Most of this group are in social housing, and the majority live alone or with one other person.

Thirsty Empty Nesters 8%

The average age of this group of customers is 63. They have an average income of £36,000 and over half are struggling or in debt. The majority live in their own home – mostly in semi-detached or terraced houses. This group pays the most for their water – but most do not have children at home and live by themselves or with one other person. Only 6% have a water meter.

Young Urban Renters 22%

This group of customers have an average age of 36, and an average income of £38,000. Most of them are employed, and a small majority rent the property they live in. Most are only just managing to make ends meet and could be running into debt. A small majority have a water meter, although out of all groups, this group demonstrates the least interest in cutting down their water usage.

Comfortable Families 29%

This group of customers are middle aged, with an average age of 46. Most have children at home - with three or more people living in the property. This segment are fairly affluent, with an average income of £5lk, but with discretionary incomes that are only slightly higher than average due to larger families. This is reflected in the fact that that just over half do not hold any savings despite their high incomes. They have larger than average water bills which correlate with their household sizes and the percentage that have children at home.













Figure 2 - Six Customer Segments

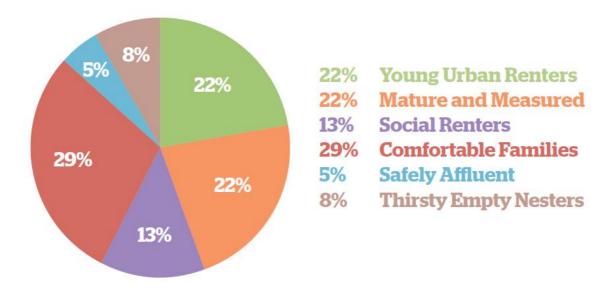


Figure 3 – Customer Segment Percentages

3.2 How we have engaged with our customers

We have taken every opportunity to engage our customers throughout the development of our business plan and we will continue to do so beyond submission. We have engaged with over 37,000 customers since we started preparing for PR19. Our research approach has ensured that we have a robust, balanced and proportional evidence base to really understand our customer's priorities and expectations. We have used a mix of engagement methods and research approaches including quantitative, qualitative and behavioural research. In addition, we have also drawn on data from a wide range of sources including customer contacts and complaints.

We have taken a phased approach to engagement during which we have taken stock of our existing understanding, gathered further evidence on customer views and opinions, tested our proposed options with customers, consulted on our plans and then refined our final proposal. Throughout these stages, we have sought to ensure that our engagement activities are customer centred, transparent, accessible, relevant and sustainable.

Over the course of the programme we have made improvements to our business as usual work and developed a business plan that reflects the priorities of our customers and the services they value. We are proud of our customer engagement work and believe it represents a step change in how we, as a water company, relate to the communities we serve. A full description of this research can be found in **Section C1 – Customer Engagement.**

Customer Engagement Roadmap



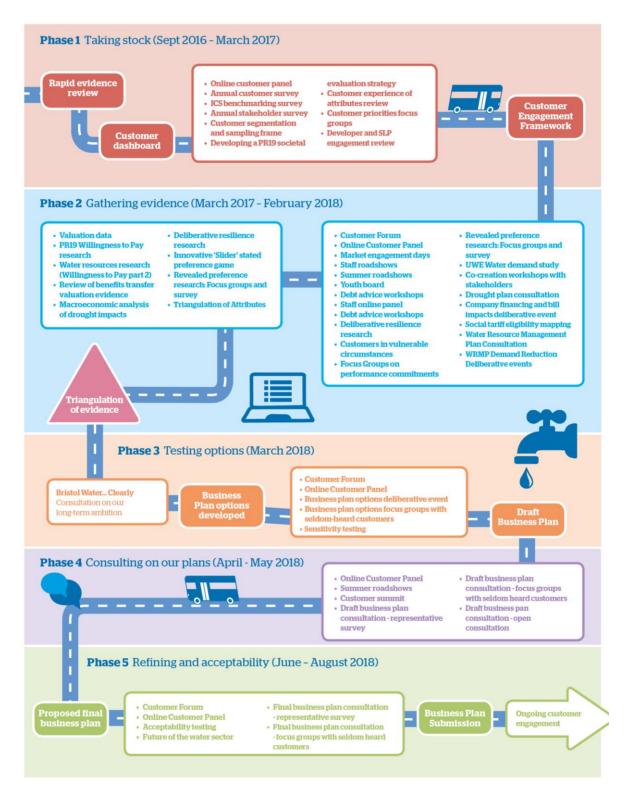


Figure 4 – Customer Engagement Roadmap

3.3 Customer views on delivering excellent customer experiences

We have engaged at length with customers about their expectations of us in order to develop a robust understanding of what good customer service means for all of our customers and to ensure we develop and co-create a plan that not only meets, but exceeds their expectations.

We have engaged with customers through bespoke one-off pieces of engagement and through our ongoing regular engagement and analysis of data. We recognise the need for customer engagement to be part of an on-going process and embedded within our day-to-day business activities. The customer dashboard and the customer experience of attributes review (discussed below) was developed in 2017 to provide critical insights for decision making and to embed the customer voice into our decision making processes during the business planning cycle and beyond.

We have asked customers about their views on customer experience as part of the following activities:

On-going and regular engagement:

- Online customer panel
- Annual customer survey
- ICS benchmarking survey
- Customer dashboard
- Customer experience of attributes review
- Youth Board

One-off engagement:

- Customer priorities focus groups
- Customers in vulnerable circumstances research
- Customer Forum group
- Customer qualitative research: Performance commitments
- Business plan options deliberative events
- Business plan options focus groups with seldom-heard customers
- Sensitivity testing
- Draft business plan consultation

Priorities

Overall, the top priorities of Bristol Water customers have remained largely consistent since PR14. We learnt from our annual surveys, the customer panel, focus groups and our literature review of past engagement that our customers consistently prioritise having an affordable bill, a reliable supply of water as well as having water that tastes good, looks good and has no smell. Other areas of importance included leakage and pressure.

We wanted to test these findings to see whether they still resonated with our customers. In order to do this we conducted three focus groups³ to gain a more nuanced understanding of the motivations behind our customers' views. In doing this, we specifically talked to customers who had recently experienced disruption. We also talked to customers from lower socio-economic backgrounds to learn more about how their experiences affected their opinions on the service they receive from us. In our discussions, we were pleased to find that many customers reported positive experiences of our customer service. When we asked about their priorities, we found that customer service wasn't always mentioned in their

16

³ B5: Customer priorities focus groups

initial responses because many believe our service is already good enough. However, when we talked to customers about areas of improvement they often mentioned the speed of resolution and the importance of keeping customers informed, particularly those customers who had experienced interruptions. This resonates with the insight captured and our analysis of our on-going customer data.

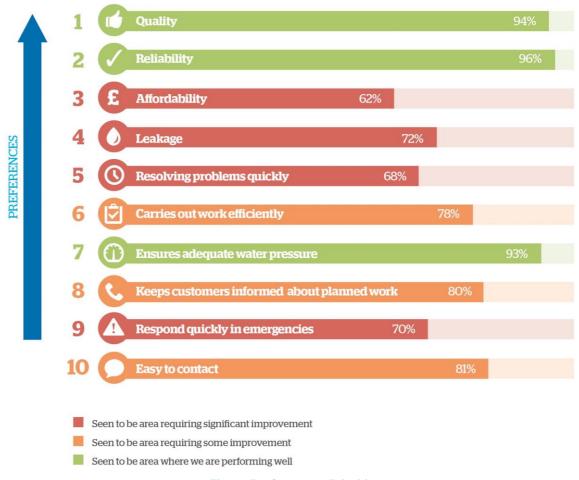


Figure 5 – Customer Priorities

Overall satisfaction

Overall, Bristol Water customers are happy with the service they receive and we compare favourably both within and outside the industry. We have a broad range of data regarding our customers' perceptions of the company and the services provided. This data is captured in the annual surveys, stakeholder survey, UK Customer Service Index (UKCSI), as well as in the monthly tracker and SIM surveys.

The respected UKCSI compiled by the Institute of Customer Service (ICS)⁴ compares customer services from retailers across many sectors. In the most recent survey results, published in July 2018, we were the top ranking water company, with a score of 79.6 compared to the utility average of 74.7 and the all sector average of 77.9 (out of 100). We were also the most trusted utility and had the highest net promoter score.

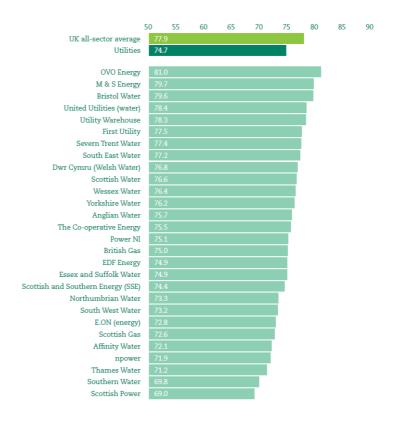


Figure 6 - UKCSI Results for Utilities, July 2018

One area where we can see room for improvement is customer effort which measures how much effort is required from customers to use our product or service. We obtained a score of 7.0, compared to the utilities average of 5.0. This result demonstrates that our customers have to go to more effort to use our service and that the ease of their experience with us could and should be significantly improved.

As well as the national UKCSI benchmarking survey, we also conduct our own Business Benchmarking survey⁵ which includes both billing and operational contacts. We scored just as favourably in this survey; in June 2018 we obtained a score of 81.1 overall. Top performing areas include competence and helpfulness of staff, our billing service and ease of speaking to someone over the phone. The lowest performing areas are around complaint handling and these include the speed at which we are seen to resolve complaints and our employees doing what they say they will do. Customers being kept informed also scored lower than other areas, which is a common piece of feedback we receive through our real-time feedback tool and concurs with the high customer effort score.

Key results include:

- We are the most trusted utility company
- The helpfulness and competence of our staff scored higher than the all other utilities and the allsector average.
- We received the highest net promoter score in the industry (35.6), significantly higher than the UK all-sector average (15.3).

⁴ A7b: UKCSI Utilities Sector Report July 2018

⁵ A6e: ICS benchmarking survey 2018

- Customer satisfaction for service in person scored higher than the utilities average and the allsector average.
- Customer satisfaction with billing was significantly above the sector average (8.4 against 7.5).
- Customers being kept informed scored just below the all sector average (7.6 and 7.7 respectively), although it was still slightly higher than the utilities average (7.4)
- The speed of resolving complaints (5.4), staff doing what they say they will do (5.3) and the outcome of complaints (5.6) were our lowest scoring areas.

Our great performance of 81.1 is not only a reassurance that our employees deliver excellent customer service, it also provides us with the opportunity to receive the Service Mark accreditation which we are preparing for.

Figure 7 illustrates the most popular words used when customers were asked about their experience with us.



Figure 7 - Most Popular Words Used by Our Customers

We also carry out an annual perception survey of 1,000 household customers⁶. The customers surveyed are selected at random, unlike most of our other surveys. These customers may not have had previous contact with us, apart from receiving their annual bill or annual newsletter, Water Talk. We have seen a steady increase in general satisfaction since 2016. In March 2018, 87% of respondents rated our service as excellent, very good or good, compared to 83% the year before. The survey has shown that our customers think we perform well at some of the service attributes that are of importance to them – especially reliability, pressure and taste and appearance. Areas for improvement in 2018 (areas that were high priority but perceived to be of low importance) were affordability, resolving enquiries promptly, keeping customers informed of planned work and carrying out work effectively.

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⁶ A5e: Annual customer survey 2018

Customer dashboard

We gather and collate all of our on-going customer data into one accessible source to help us analyse and recognise patterns and data trends from as early as 2014, see Table . This essentially means we are able to understand our customer priorities, complaints and feedback via one user friendly source which we call our 'customer dashboard'. The dashboard combines all the sources of our on-going customer insight including:

- SIM surveys
- Monthly tracker
- Annual perception survey
- Online panel questionnaires
- Complaints data
- Inbound calls
- Unwanted calls
- Real-time feedback
- CCW Water Matters Report
- Social tariff take up
- Annual DWI report on drinking water
- Institute of customer service business benchmarking

Service Attribute	Priority		Customer perception of performance (annual survey)	Average satisfaction score from replica survey	SIM dissatisfied (% in 2017/18)	Complaints (% in 2017/18)	Inbound calls (% in 2017/18)	Overall RAG
	(%age of customers rating it very important or quite important)		average: 86%	average: 84.6	n/a	average: 7%	average: 7%	
Quality	Provides water that tastes good and has no smell/provide water that looks good	99.0%	95.0%	88.6%	2.0%	8.0%	9.4%	
Pressure	essure Ensured adequate water pressure		94.0%	69.3%	17.0%	5.8%	6.8%	
Reliability	Provides a regular water supply	100.0%	99.0%	84.9%	15.0%	2.7%	12.9%	
Leakage	Repairs leaks as quickly as possible	100.0%	73.0%	83.7%	19.00%	8.4%	21.1%	
Metering	Increases number of customers on meters	76.0%	64.0%	86.6%	2.0%	8.4%	3.3%	
Affordability	Affordable bills	99.0%	83.0%					
Road disruption	Reduces traffic distruption	99.0%	65.0%			3.2%	0.01%	
Environment Helps protect the environment		98.0%	73.0%	•				
Lead	Lead n/a			91.9%		0.4%	0.03%	
Service Resolves enquires promptly		99.0%	70.0%	82.80%	13.00%	17.40%	4.40%	

Table 3 - One page of the Bristol Water Customer Dashboard

The dashboard gives us an overview of the different messages we are hearing from our customers. Analysis of the customer insight from the dashboard shows that customer satisfaction and the speed of resolution goes hand in hand. For example, issues relating to more transactional billing or appointment queries have a high satisfaction whereas customers calling about leaks or pressure often result in a lower satisfaction score (primarily as answers may not be instantly available).

Our on-going contact data shows that those customers who have expressed negative experiences often explain that this is due to poor communication and lack of regular updates. In addition, customers frequently express the need for fuller explanations with more information in order to answer and resolve their queries.

3.4 Customer views on channel of choice

In December 2017, we carried out an online panel on customer service expectations and experiences. We asked customers how likely they would be to use different channels of communication and they told us that they were most likely to contact us by email (86% very/quite likely), telephone (74%) or via the

website (74%). When we asked about any other methods of getting in touch, our customers said they would like to be able to contact us via text, smartphone app, WhatsApp and online chat.

We also asked customers about the hours in which they thought we should offer the various communication channels. The results show a demand for most sources of information to be available between the hours of 8am and 8pm, in particular email and phone calls.

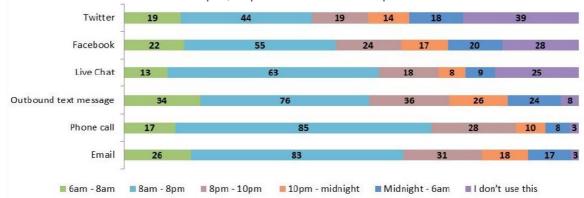


Figure 8 - Preferred Contact Times

We asked which channels our customers have used to contact us and over half said that they had contacted us by telephone and a quarter by email. We then asked how satisfied they were with each channel. Satisfaction was highest for Live Chat (90% very or fairly satisfied) and phone calls (89%). When we asked what we could do to improve our customer service they mentioned digital tools like mobile apps and social media, although there is still a need to maintain traditional communication channels.⁷

We asked our customers about their preferred methods of communication in our priorities focus groups⁸. Customers believed we should be easy to contact and that we have a responsibility to keep them informed. Our customers offered a range of opinions regarding what they felt it was important to be informed about. Customers also had mixed preferences about how they would prefer to receive information, with some preferring digital communication whilst others were more reliant on post and telephone.

There was divergence on whether email communication was a preferred method to receive information. Some participants preferred email and thought it was the method for future generations, while other participants said they would not be interested in receiving an email from Bristol Water. Many customers in this group also said they appreciated being able to speak directly to a Bristol Water employee when they call. For example, one customer said:

"It's nice to phone up and speak to somebody, rather than an automated message."

Customers on our social tariffs recognised that they would use online resources (website, Facebook, email) to gather information and communicate with us. However, some customers in the same group acknowledged that they did not feel comfortable using those forms of technology.

Customers who had experienced a service disruption identified a preference for using a form of online communication (e.g. website, social media, or smartphone-based communication such as text message or WhatsApp). One participant said that they are proactive about seeking the information they want, but

21

⁷ A4a: Online Customer panel April 2016.

⁸ B5: Customer priorities focus groups

comparatively, did not find the Bristol Water website useful. Another participant said that email communication was preferred, but said Bristol Water needed to improve its online communication, though it should be used sparingly:

"Bristol Water [is not] technically savvy in terms of using modern forms of communication – most of it seems to be paper driven. They can keep people up to date in a more efficient way. Emails are more efficient – as long as it's not a monthly newsletter so you know when you get something you need to read [it]."

3.4.1 Future customers

We have talked to future customers about the experience they expect from us as we believe engaging them provides us with critical insight into future customer experience expectations, from those born into a digital world.

Our Youth Board⁹ told us that accessibility and self-service are key aspects of good customer experiences. They identify frequently asked questions on the website as being a time saver and suggest that company apps are helpful for providing a breakdown of upcoming bills. This group stressed the importance of apps being easy to use with clear simple interface for all ages. They also told us that employees play a key role in providing a great customer experience and that they must be friendly, knowledgeable and able to deliver a personable service and cater to individual needs.

As well as gaining rich insight from discussions with the Youth Board we asked them to distribute an online survey within their schools in order to provide a quantitative read on the views of a larger sample of future customers. The short questionnaire was distributed at each meeting and gained 250 responses from schools across the Bristol Water area. The topics covered included future expectations of their Water Company, priorities for future investment, and impressions of Bristol Water. Although students ranked service as a lower priority than reliability and resilience, it is still an important expectation.

3.4.2 Customers in vulnerable circumstances

As well as talking to customers on a daily basis, we also met with around 30 customers in vulnerable circumstances in September 2017 to understand their views in more depth¹⁰. We sought to receive qualitative insight into stakeholder and vulnerable customer perceptions and to understand what is most important to them. Most of the interviewees were either eligible customers or those currently registered on one of our social tariffs or our Priority Services Register. The participants had multiple reasons for being in financial and circumstantial difficulty such as employment issues, health conditions and family circumstances.

We found that many customers were accustomed to challenging relationships with organisations in general, and that they had low expectations of being proactively offered help and support. Conversely, once they had spoken with us regarding the possibility of receiving financial assistance they were positive about the experience. They consider us to be easy to work with and found the signing up process straightforward. Customers and stakeholders are impressed by the range of support that is offered, but too few customers were aware of the help we can offer not just with bills but with other needs. These customers feel that more could be done to raise awareness and promote the help available to them. They also suggested that we should develop deeper understanding of individual circumstances by building personal relationships, being aware that it is better to act before there is a problem and keep the message of the support available with frequent reminders.

⁹ A12: Youth Board

¹⁰ B13: Customers in vulnerable circumstances

3.5 Performance commitments focus groups

During the development of our performance commitments, we engaged with customers on our proposals to understand their views and how they think we should measure ourselves for customer experience.

We asked for customers' views at our performance commitments focus groups¹¹ (n=29) and they told us that they prioritised protecting those in vulnerable circumstances, noting the belief that these customers deserve the same level of service despite their circumstances. They also prioritised value for money as a key performance measure due to the lack of open market competition. When discussing CMeX, customers valued this commitment because it allows us to receive positive and negative feedback on our service. However, they had concerns over the potential for ambiguity and skewed results as the feedback element may be hard to measure.

3.6 Business plan options research

As we started to develop our business plan options we wanted to involve our customers in shaping the choices. Rather than decide on just one or two options to test with customers in our open consultation, we decided to test a wide array during an earlier stage of the process to give customers more ability to influence our plans.

We asked customers to prioritise our draft performance commitments and outcomes in order of importance, and then again with information about the costs of improvements in different areas 12. Overall, customers prioritised reliability followed by local environmental resilience; customer experience was least prioritised, with some arguing that Bristol Water was already doing well, or suggesting that it was a distraction from the core service. However, our customer forum also told us that within the outcome areas some attributes were more important than others, for example some participants wanted to invest more in reducing water poverty, water efficiency and traffic disruption than other aspects of customer experience. Improvements in 'communication' were prioritised inconsistently by customer forum members as they felt that the current level of service was good. This reflected our developing understanding that customers see some service attributes as *important* without necessarily feeling they need to *improve*.

Our online panel gave us similar feedback, during our March 2018 survey of 1,500 customers¹³ (see Figure 9): they prioritised reliability, followed by local and environmental resilience and then customer service¹⁴. Within the customer experience outcome they also told us that the highest priority attributes were water efficiency, communication and paying bills respectively. When our Youth Board carried out a survey of 250 of their peers we found the same pattern¹⁵.

¹¹ B14: Performance commitments focus groups

¹² B24: Business plan options events

¹³ A4d: Customer online panel March 2018

¹⁴ A4g: Online customers panel March 2018

¹⁵ A12: Youth Board

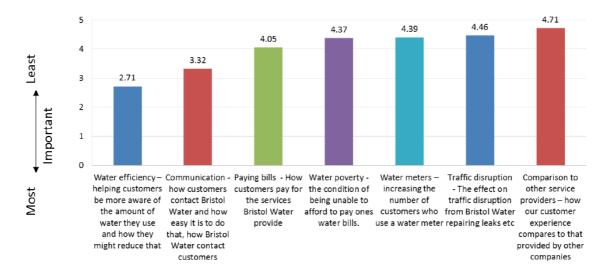


Figure 9 - March 2018 Online Survey Results

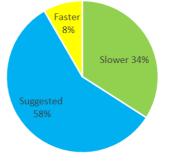
3.7 Draft business plan consultation

When we talked to customers about customer experience as part of our draft business plan consultation¹⁶ they often made general comments about the importance of good customer service and supported the suggested plan. Some customers questioned the faster target, arguing that Bristol Water shouldn't be compared with "FTSE100" companies or suggesting that being top is more valued by the company than customers. Others questioned whether it was necessary to pay more for customer service to improve, seeing it as an internal Bristol Water issue. The customer segments of Social Renters, Young Urban Renters and Thirsty Empty Nesters were all more likely to select the slower improvement plan.

The majority of customers chose the suggested plan; despite the fact the slow plan adds no cost to the customer bill. This shows that customers are willing to pay a small amount for improvements in this area. However, it should be noted that the customer experience outcome is the cheapest out of the three outcome packages, and previous conversations have shown that customers do not place a high value on customer experience.

For Bristol Water, with excellent services already in customer perceptions, we continued with the suggested plan whilst being mindful that many customers see great customer service as a normal business activity.

Customer feedback on 2024/25 target



(n=2517)

Figure 10 – Customer Feedback

¹⁶ B28. Draft Business plan consultation representative survey, B29: Draft business plan consultation focus groups, B30a: Draft business plan consultation

3.7.1 Customer views on affordability for all and value for money

We have engaged at length with customers about the affordability of their water bill in order to develop a robust understanding of what affordability means for all of our customers. We have developed and co-created a plan that not only meets, but exceeds our customers' expectations.

We have asked customers about their views on value for money as part of the following activities:

Ongoing and regular engagement:

- Online customer panel
- Annual customer survey
- ICS benchmarking survey
- Customer dashboard

One-off engagement:

- Customer priorities focus groups
- Triangulated valuation research:
 - Willingness to pay stage 1 and 2
 - o Benefits transfer
 - Macroeconomic analysis of drought impacts
 - Revealed preference
 - o Slider game
 - Mini-stated preference
- Company financing and bill impacts deliberative event
- Business plan options research
- Sensitivity testing
- Draft business plan consultation

Value for money is an important concept in measuring whether customers consider the service that we provide is worth what they pay for it. Since 2015 'Bills are too expensive' has been one of the top three reasons for customers to express their dissatisfaction in the annual survey¹⁷. We know from our annual survey and other studies that customers think keeping bills affordable for all is important; however, customers consistently rate our performance on affordability low.

To help us understand what customers would like us to invest in we have carried out surveys with over 3,000 customers on the different elements of our service. Looking at all this research together we see that customers expect us to do more for less, but that customers are not interested in lower bills at the expense of the current service we provide.

When we have spoken to customers about options to invest in long-term initiatives such as resilience schemes, some customers told us that although they believe they are important, their choice would still ultimately come down to the affordability of the bill. When it comes to spending money to improve services, we know most customers want us to invest but not if bills are going up anyway, making them less affordable. Where we can offer improved services at the same price customers often prefer that to a reduction in the bill. We know that how willing customers are to invest in improvements is closely linked to the overall bill level when their personal financial circumstances are more difficult.

25

¹⁷ A5a-e: Annual customer survey 2014 - 2018

During a day-long workshop, we talked to customers about how we finance our investments¹⁸. Customers told us that their priority was for bills to stay low and stable, and that this drove their financial decisions. Where possible, many customers had a preference for paying up-front so as not to incur debt but realised that this wasn't possible for everyone, especially for those in financial vulnerability; therefore, keeping bills low and stable was prioritised overall. Where customers did choose to spread the cost, they wanted repayments spread over as short a period as possible to avoid storing up costs for future generations and paying high interest. No customers wanted repayment to extend beyond the lifetime of an asset. Overall 67% of customers thought Bristol Water's current proportion of finance was "about right" and 24% considered it to be too high. Customers were interested in using models that would allow people in different circumstances to pay different amounts.

When we spoke to customers about our proposed performance commitments¹⁹, they prioritised value for money as a key performance measure due to the lack of open market competition. To ensure that our business plan delivers outcomes that customers value, at a price they are willing to pay, we conducted a range of valuation research. The breadth of the research techniques we utilised has helped to ensure that the resultant valuations provide a robust, balanced and proportional evidence base to be triangulated to support the cost benefit analysis for the Water Resource Management Plan and the Business Plan²⁰.

For a detailed explanation of how our outcomes framework has been driven by the preferences and priorities of our customers, and the service levels that represent the most beneficial option at a cost that customers view as good value, see **Section C3 - Delivering Outcomes for Customers**.

In our draft business plan consultation, we provided customers with a range of options and the financial impact of each on the bill post our innovation and efficiency measures both pre and post inflation²¹. Two key concerns for customers across all questions were lower bills and good value for money. The faster option was the least preferred across all questions. Customers' overall preferences did not necessarily match their preferences in relation to individual issues. Across all the outcome packages, more customers chose the slower plan and fewer chose the faster plan than when just looking at the individual services. Customer choices are heavily influence by the impact on their bill, with the higher bill impacts seeing less support from customers.

The consultation showed that customers are more willing to pay for improvements (i.e. choose the suggested or faster plan) when bills are lower overall. This effect is stronger for customer segments with lower household incomes, supporting the view that customers are constrained by their personal circumstances when making choices about investment.

Figure 11 shows the support for our overall plan by each of the persona groups which reveals that 'Social Renters' preferred the slower plan, a higher proportion of 'Safely Affluent', 'Mature and Measured', and 'Thirsty Empty Nesters' were more likely to choose the faster plan but the majority still preferred the suggested plan.

¹⁸ B19: Company financing and bill impact deliberative event

¹⁹ B14: Performance commitments focus group

²⁰ B20: Triangulation by attribute

²¹ B28. Draft Business plan consultation representative survey, B29: Draft business plan consultation focus groups, B30a: Draft business plan consultation

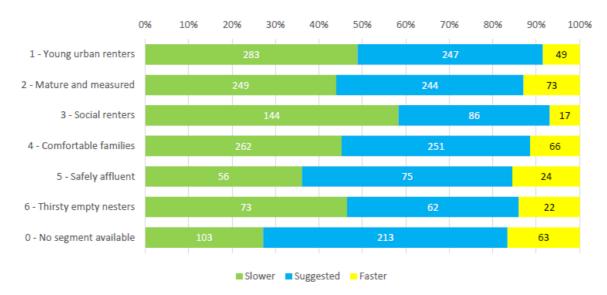


Figure 11 - Preferred Plan by Customer Segment

3.7.2 Customer acceptability of our plan

After significant consultation with our various customer groups, 93% found our plans acceptable. Our final acceptability testing survey found our final plan at a bill of £175 to be acceptable. Furthermore, there was broad support for the outcomes proposed in respect of service levels. As anticipated, from our prior research and consultations we found a range of levels of acceptability for our plan across the varying customer types; 84% for the most service and price vulnerable customer segment to 97% for the "mature and measured" segment. To further confirm price sensitivity of the bill, the acceptability of our plan when inflation is added is 83%.

When comparing the options, 82% of customers preferred our proposed plan to the one with a £4 lower bill citing their preference for reductions in supply interruptions and better resilience and water efficiency improvements.

We presented our performance commitments for each of the three areas and asked our customers to what extent they agreed with the proposed changes, with varying levels of detail in each method. In the telephone survey and focus groups we asked customers for their views on each of the three service improvement areas (customer service, water supply, environment and community). Over 70% of customers agreed with each option, and less than 5% disagreed, with the remainder expressing a neutral view or saying they didn't know.

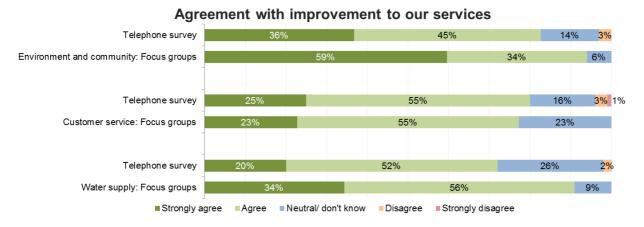


Figure 12 - summary of B31 - B34 Final business plan consultation

Specifically, for customer service, in both the online and telephone surveys, we found that around 80% of our customers agreed with our planned improvements for customer service. In our online survey, we were able to ask customers about each of the performance commitments and we found that only 5% disagreed with the proposals. Qualitative feedback from our focus groups and customer survey told us that we need to better communicate the support we offer to customers in vulnerable circumstances. Our customer forum strongly supports our work with vulnerable customers but question whether improving customers service should be something that requires additional customer investment.

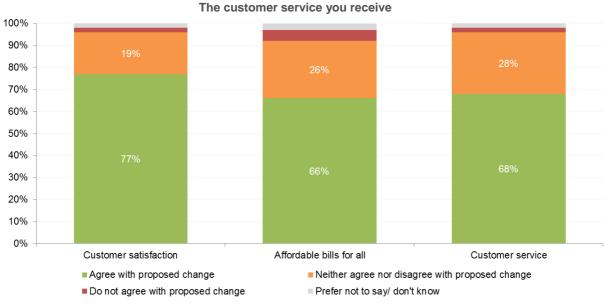


Figure 13 - Acceptability of customer service performance commitments

Comparing our customer segments, we find that in our telephone survey the strongest support for our customer service proposals comes from our social and young urban renters. We also found that customers in our low income focus group were more supportive of these improvements, particularly the

support for vulnerable customers, compared with the future customers group who had more questions about the social tariffs and how they would affect other customers' bills.

Given our extensive process of customer engagement, we believe that we have developed a business plan that will provide excellent water experiences at a price customers find acceptable. Furthermore, it supports the communities we serve and ensures those in vulnerable circumstances are supported and that the environment is protected

4 Delivering Excellent Water Experiences

4.1 Performance Commitment

	Unit	2019/20	2024/25
C-Mex (proxy – UKCSI)	TBC	Top performing water Company	Aim for top performing utility company

Table 4 - Performance Commitment

4.2 Introduction

Customer expectations are changing dramatically and it remains a tough balancing act between the evolving demands of customers and ensuring our water is affordable for all. Our strategy has always been aligned to our overall identity as a community organisation; placing the customer at the heart of our business.

In doing so we ensure our customers have a channel of choice in the way in which they interact with us.

Currently we provide:

- Telephony
- Email
- On Line panel
- Live chat
- Social media (Facebook, Twitter)
- Letters
- SMS
- Feedback cards/real-time feedback
- Face to Face

We will continue to keep abreast of changing technology and offer channels of communication that fit our customers' needs.

Our approach to customer engagement, and the subsequent feedback, has been comprehensive. We have sought to understand our customer segments, behaviours and expectations more deeply than ever before. We have used the insight we have gained to engage with our customers in an effective, personalised way using digital, social or mobile channels alongside more traditional engagement channels. We have used this understanding to develop our promises and outcomes and to ensure they are based on our customers' priorities. In section 3 of this document, we outline our approach and the feedback from our customer engagement with a further detailed explanation provided in **Section C1 – Customer Engagement.**

4.3 Customer Service performance

To date, we have used a range of measures to benchmark our current service performance. This insight has helped us shape our plans for the future. Independent surveys by the Institute of Customer Service indicate that we already provide our customers with the best level of service in the water industry²² and one of the best of any utility company. This supports what our customers tell us directly, with the vast majority of customers telling us they are satisfied with the service we have provided. However, our performance as measured by Ofwat's Service Incentive Mechanism and the early results from the C-MEX trial suggest there is room for improvement. Whilst C-Mex is being defined we use a proxy measure, namely our UKCSI score, to determine our service performance.

Service Incentive Mechanism (SIM) – Historical Performance										
		2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18		
	Bristol Water	85	86	85	85	85	86	83		
	Average	74	78	82	82	82	84	84		
Industry	Upper quartile	78	84	85	85	85	86	87		
	Frontier	85	88	88	88	88	88	88		

Table 5 - SIM Historical Performance

2017/18 was a particularly challenging year for us. A major burst in July 2017 at Willsbridge was the biggest in our recent company history and saw 35,000 properties without their normal water supply for up to 29 hours. In January 2018 a routine sample of raw water at Clevedon Treatment Works was found to contain cryptosporidium oocysts which led to us issuing a precautionary boil water notice to around 7,000 properties until we could guarantee that there was no risk to our customers. In March 2018 we had to manage our activities to cope with a spell of severe weather which saw pipe bursts increase dramatically across our network and at customer properties.

In each case we responded well, we managed our planning to allow us to take swift action to ensure the wellbeing of our customers. Our staff worked exceptionally hard to overcome the challenging circumstances we faced. We were praised by our customers for our engagement with them in each incident, both through our employees on the ground and through social media channels where we provided real-time responses to our customers' questions. Regrettably, despite our efforts our customers told us through the SIM surveys that we could have done more and we experienced deterioration in SIM performance which dropped from our upper quartile position to just below average in the sector. Looking forward, during the remainder of this AMP we anticipate returning to upper quartile performance scoring 87 within each of the next two years. We are likely to be slightly above average over 2015-2019 for SIM, and although this may (depending on the approach Ofwat take) earn us a small reward, we haven't assumed this in the plan in advance of 2018/19 actual performance being known.

Whatever the measure of performance, we have listened to what our customers have told us and focused on the areas where we can improve. When developing our plans for customer excellence, we have consulted with our household customers, as well as our retailers, developers and wider stakeholders. Table 6 highlights the options we discussed with our customers in the draft business plan consultation. In our final acceptability testing, in the context of both comparative performance and the

²² UKCSI report July 2018 (A7B)

proposed bill, 68% of customers agreed with our plan to aim to be the best utility for customer experience and only 3% disagreed. In the telephone survey where less information was provided, 80% of customers agreed with our proposals and only 4% disagreed. Interestingly, the majority of customers felt that delivering the suggested improvements was the most appropriate outcome, believing that being the top 10 of all companies was a benefit to the company rather than to customers per se. To improve our understanding of our customers and their priorities, we have drawn on a range of sources, including industry papers and trends, best practice, qualitative and quantitative research, and learning from our own experiences. Further details of our findings are found in **Section C1 – Customer Engagement**.

				2050 Target		
Performance commitment	Unit	2019/20 Baseline Target	Slower improvement	Suggested improvement	Faster improvement	Long- term ambition
C-MeX (proxy - UKCSI)	UKCSI	Top performing water company	Top performing water company	Top performing utility company	Top 10 of all companies	Top 10 as UKCSI

Table 6 - Service Excellence Commitment

The introduction of C-Mex during the next regulatory period will result in a change of metrics evaluating customer experience and satisfaction outcomes. As the final design of C-MeX has not yet been published, long-term projections have not been set for this performance commitment at this time; therefore, we frame our long-term ambition in the context of proxy measures, such as the SIM and the UKCSI.

Using the UKCSI as the measure of customer satisfaction, our customers already perceive that we deliver excellent services. The latest UKCSI survey showed that they ranked us as the **most trusted utility** and the **best water company for customer service**. In recognition that C-Mex will become industry standard measure of satisfaction and to deliver against our C-MeX performance commitment, we will:

- Make it easier for our customers to find what they need from us by offering multiple channels and self–serve options. This will allow them to find out what they need to know at a time that suits them.
- Reduce our bills and make sure customers understand our delivery against performance commitments so that they are happy their money is being well spent.
- Continue to be the most trusted utility company.
- Equip our employees with the knowledge and technology they need to provide great customer care through all our customer channels.
- Invest in new technology to give our employees the information and systems needed to ensure we consistently meet the timescales we have promised our customers.
- Invest in our digital technology so our customers can access information at a time of their choice.
- Work with other utility companies and local councils to reduce the impact that roadworks have on traffic disruption in our supply area.
- Make improvements to our billing system to help us to identify if our customers need any of the
 additional services which we offer. Use data to improve our service, like sharing our street works
 information with third parties so customers can see the impacts of our work on traffic and plan
 accordingly.

5 Addressing affordability and value for money

5.1 Performance Commitments

	Unit	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Customers in Water Poverty	%	0	0	0	0	0	0
Value for Money	%	79	80	81	82	82	83

Table 7 - Summary of Performance Commitments - Affordability

5.2 Addressing Affordability

Society is changing and the needs and expectations for our services do not stay the same over time. Changes in the income levels of individual groups of customers can, over the long-term, affect the wellbeing of everyone. We want our bills to be affordable for all of our customers, both now and in the future.

Across the UK, household disposable incomes are being squeezed by rising prices and depressed wage inflation, resulting in unsecured debt levels being at a 10 year high (>£200bn) as the population struggles to maintain their standard of living.²³ The National Audit Office's 2017 report suggests that household debt is expected to rise, putting further pressure on finances across the country. This creates challenges; in particular, for utilities where households typically prioritise high consequence (such as mortgages) or high interest (such as credit cards) debts over utilities²³ thus creating a real need for us to ensure our bills are affordable both today and tomorrow.

Our customers tell us one of their key priorities is affordable bills. This is reflected in our strategy to ensure our bills are affordable for all. There are a number of factors that affect affordability such as household social-economic factors, the macroeconomic environment and of course the bill size. In CCWater's 'Water Matters Report 2018', 80% of our customers found our bills to be affordable and when combined with sewerage charges (Wessex) 77% of customers found the bill to be affordable, both of which are higher than the industry average. Notwithstanding the validity of the statistical relevance of this finding, it might be suggested there are there a proportion of customers who do not find their bills affordable within our supply area. If we are to truly realise our ambition of "affordable bills for all" we will need to address those who find their bill unaffordable.

Creating an affordable bill is the outcome of all elements of our plan. Our plan states that bills will reduce by 4.5% and remain lower than they were in 2014/15 until at least 2030. This reflects the absorption of ten years' inflation (RPI/CPIH) and there will not be any compromise on the service we deliver. Indeed, we will improve our service by continuously looking for ways to develop, finding more cost effective ways to serve our customers (exploitation of our digital channels), or put another way, delivering operational excellence.

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²³ Baringa Partners, 'Reducing Customer Debt: Macroeconomic Trends', September 2017

Our proposed bill profile is set out in figure 14 which sees bills decreasing (before inflation) through AMP 7 before increasing at the beginning of AMP 8 (a consequence of the c£10m revenue penalties for AMP6 under-performance unwinding) and then reducing throughout AMP 8.

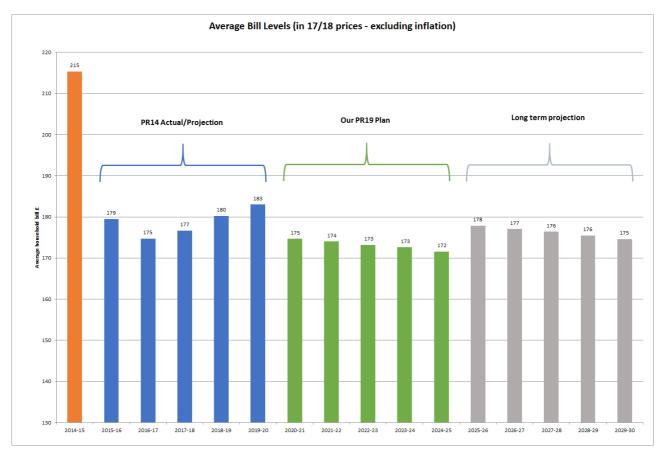


Figure 14 - Bristol Water household bill profile - forecast to 2030

With inflation, which reflects the nominal retail prices form of this control, the bill reduction includes a c. £4 reduction in retail bills, which is a mixture of efficiency and fixed costs being shared over a growth in the number of residential customers, despite additional meter reading costs from an increase in meter penetration from 66% in 2020 to 75% in 2025.

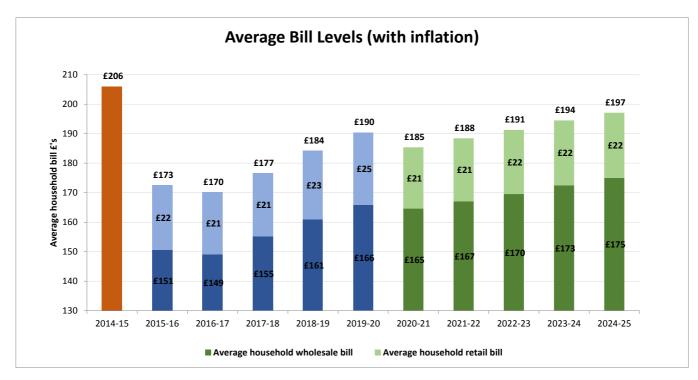


Figure 85 - Bristol Water household bill profile - forecast to 2025

Whilst it is difficult to predict how the macroeconomic landscape might change (impact of Brexit as one example) we will continue to support those who are either unable or struggling to pay their bill, addressing those that find their bill unaffordable. One of the key indicators that we are achieving this ambition is an understanding of the extent our customers find themselves in water poverty. Our stretching ambition has been to eliminate water poverty within our supply area. In 2017/18 we achieved this ambition which is somewhat ahead of our original plan set out in the 2014 price review.

Our research has suggests that there c25,000²⁴ customers in our area that could benefit from one of our social tariffs today and it might be suggested that they are at risk from water poverty; this is likely to grow over time with population or as incomes change. Our plan, set out in detail in **Section C2** - **Addressing Affordability and Vulnerability**, seeks to ensure we support those customers in gaining some form of financial assistance or participating in one of our social tariffs. In doing so we mitigate any financial "headwinds" our customers may face, ensuring that our bill remains affordable for all.

Of the elements of affordability that we control, namely the bill size, our customers provided a 93% acceptability of our revised plan, indicating overwhelming support and confirming that is affordable.

Whilst addressing some elements of affordability through the provision of our social tariffs and the signposting of independent debt management advice, there will be some customers who are struggling to pay (or who are unable or unwilling) to seek or accept such support. We recognise that creating affordable bills must go beyond the provision of financial support or advice. The other side of the equation is to reduce usage.

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²⁴ CACI Data report March 2018

The installation of a meter could save up to £100 for our customers and will also likely lead to them having a cheaper energy bill as a result of heating less water. We are targeting meter penetration of our household customers to increase to 75% by 2025. Reducing consumption, leading to a reduced bill, is not only about having a meter installed it is also about education and fitting water saving devices. Consequently, we will continue to educate on water usage alongside the provision of water saving devices as well as creating awareness of the potential affordability benefits of being on a meter via programmes such as "Beat the Bill" and through targeted customer communications. Further improvements in technology will enable us to develop tools and prompts for metered customers to reduce their consumption, including an improved water usage calculator available on the Bristol Water website with the option for customers to 'save my data'. In addition, we will offer water usage benchmarking and proactively follow-up with customers who fall outside the expected range.

Table 8 provides information of potential savings available by intervention device type that are provided free of charge.

Intervention device	Annual Metered Water Savings		Annual Energy Bill Savings		Total Annual Utility Savings	
Shower Regulator	£	31.76	£	10.13	£	41.88
Shower Timer	£	5.29	£	1.69	£	6.98
Toothy Timer	£	13.55			£	13.55
Tap Inserts	£	38.11	£	10.13	£	48.23
Save a Flush	£	13.55			£	13.55
SwellGel	£	0.53			£	0.53

Table 8 - Potential Savings from Water Saving Device. Source: Save Water Save Money.com

In short, our plan ensures our bills are affordable today, tomorrow and beyond whilst supporting those who are unable or struggling to pay. We are confident our plan fulfils this ambition, and our customers agree.

5.3 Addressing Value for Money

When customers make an assessment of value for money (VFM) it goes beyond just the price. Price is one of many facets that customers consider when making their assessment. We understand that water is essential for life and well-being and therefore its utility is unquestioned. For customers, it is also about whether in purchasing our water they are also spending well and spending wisely. Another interesting component of perceived value is trust. In building trust, we remove our own self-interest and ensured we hear from our customers (details are set out in **Section C1 - Customer Engagement**) on what was important to them.

In CCWater's 'Water Matters Report 2018', 77% of our customer found our bills to be VFM and when combined with sewerage charges (Wessex) 82% of customers found the bill to be VFM, both of which are higher than the average found across the industry. In the same report Bristol Water's average rating across the prior seven years is 72.8% which is slightly above the industry average for the same period (72.2%). In our own annual customer perception survey, conducted in February and March 2018, 79% of customers surveyed rated the value for money from Bristol Water as either very good or good (a 1%)

increase from 78% in 2017). Conversely, 2% of customers rated it poor value for money and 0% rated it very poor.²⁵

When we spoke to customers about our proposed performance commitments, they prioritised value for money as a key performance measure due to the lack of open market competition. They also said that to improve VFM they expected us to communicate more, letting them know about the services we offer. Consequently, we will build on the innovative "Water Bar" to reach out directly to customers as well as investing in social media communications as we extend our reach to more customers.

Consequently we propose:

Committed Performance Levels							
Value for Money	Unit	2019/20 (Baseline)	2020/21	2021/22	2022/23	2023/24	2024/25
	%	79	80	81	82	82	83

Table 9 - Percentage of Customers Finding Our Bill 'Value for Money' Forecast

Our research reveals that 'Social Renters' are twice as likely as the 'Safely Affluent' to request lower bills. Equally, 'Social Renters' aren't as likely to comment that their preferred option is good value for money compared to 'Mature and Measured' and 'Safely Affluent' customers, therefore setting an ambition of 90% of customers perceiving we offer value for money in the long-term seems realistic (Figure 16). We will work hard on reaching our "Social Renters" to provide interventions which help to reduce their overall bill, either as a result of reduced consumption or application of one of our social tariffs. In the long term we will improve the VFM, as judged by our customers. Table 9 demonstrates our continuous improvement over time in this area.

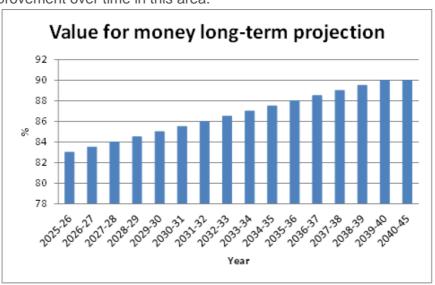


Figure 16 - Long Term VFM Forecast

For a detailed explanation of how our outcomes framework has been driven by the preferences and priorities of our customers, as well as the service levels that represent the most beneficial options at a cost that customers view as 'good value' see **Section C3 - Delivering Outcomes for Customers**.

²⁵ Percentages don't add up to 100 because alternative choices of 'Neither/nor', and 'don't know' were also given

6 Addressing Vulnerability

When considering vulnerability we take the definition from Ofwat's 2016 'Vulnerability Focus Report'. The conclusion of the report is that a customer whose circumstances make them vulnerable can be defined as:

"A customer who due to personal characteristics, their overall life situation or due to broader market and economic factors is not having reasonable opportunity to access and receive an inclusive service which may have a detrimental impact on their health, wellbeing or finances." ²⁶

We believe that 'customers in circumstances that make them vulnerable' or 'situations of vulnerability' broadly fall into two categories, namely;

- Financial
- Situational

For ease, we address them separately within our plan at the same time as recognising that they are not mutually exclusive. Furthermore, we understand that vulnerability can be transient; customers may find themselves in vulnerable circumstances that are temporary, such as following the loss of employment. Sadly, there are customers whose circumstances make them vulnerable permanently, such as someone with a permanent physical impediment. Our plan sets out how we will ensure our services are inclusive so that all our customers have a reasonable opportunity to access and receive our service.

6.1 Performance commitments

	Unit	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Customers on Special Assistance Register/ Priority Service Register (SAR/PSR)	No.	5,364	7,105	8,885	10,400	12,196	14,330
Customers on Special Assistance Register/ Priority Service Register (SAR/PSR)	%	0.5%	0.6%	0.8%	0.9%	1.0%	1.2%
Percentage of vulnerable customers satisfied	%	85	85	85	85	85	85

Table 10 - Summary of Performance Commitments - Vulnerability

6.2 Addressing Financial Vulnerability

Currently we offer a comprehensive range of support to customers who struggle to pay their bill, including three social tariff options and a range of additional assistance to help manage their money and work with a realistic plan to deal with their debt. These options have resulted in us eliminating water poverty from our supply area (June 2018). Currently, we support 13,707 customers (as at March 2018) with some form of affordability assistance. CACI data reveals that there are c25,000 customers in our area that could benefit from one of our social tariffs. Our ambition is to ensure water poverty in our area remains eliminated (Table 11 sets out historical and future ambition) and support those people

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²⁶ OFWAT; Vulnerability focus report, February 2016

eligible in gaining some form of financial assistance to participate in a social tariff the opportunity to do SO.

	2014/15	2015/16	2016/17	2017/18	2018/19	2020/21 – 2024/25
Percentage of customers in Water Poverty	2.5%	0.4%	1%	0%	0%	0%

Table 11 - Historical Performance and Future Ambition of Percentage of Customers in Water Poverty

As outlined earlier, we segmented our customers into six different personas. We found that the 'Social Renters' cohort displays the lowest affluence of all the segments, with especially low discretionary incomes. A low level of employment results in nearly all of them are struggling financially, with an average yearly household income of £19,000 and 99% just managing to make ends meet or running into debt. Despite this, their water charges are only slightly lower than average. They are more than doubly likely to pay via installations than average. Most customers in this category live in a rented one or two person flat. Whist 90% of these customers' state they are making an effort to cut down on water usage, 60% are unmetered. This cohort account for 13% of our customer base and there is an opportunity to target this group and ensure they get the support required and their efforts to reduce water usage result in lower bills. This is our focus today and tomorrow.

A breakdown of those that are currently in receipt of a social tariff, by type, is set out in Table 11 along with our projections to 2025.

Tariff		2017	2018	2019	2020	2021	2022	2023	2024	2025
Total number of metered customers on WaterSure	1,860	2,160	2,587	2,790	2,992	3,195	3,398	3,601	3,803	4,006
Total number of customers on " Assist " Social Tariff	6,108	6,348	6,439	7,330	8,221	9,112	10,002	10,893	11,784	12,675
Total number of customers on " Pension Credit " Social Tariff	75	1,328	4,681	5,276	5,872	6,467	7,062	7,657	8,253	8,848
Sub total	6,183	7,676	11,120	12,606	14,093	15,579	17,064	18,550	20,037	21,523
Total number of customers on a Social Tariff	8,043	9,836	13,707	15,396	17,085	18,774	20,462	22,151	23,840	25,529

Table 12 - Projected Numbers of Customer in Receipt of a Social Tariff

Further details can be found in Section C2 - Addressing Affordability and Vulnerability.

6.3 Addressing Situational Vulnerability

In the UK there are over 13 million people with a disability²⁷ with around 17% having it from birth. There are also 11.8 million people aged 65 or over in the UK. The number of people aged 65+ is projected to rise by over 40 per cent (40.77%) in the next 17 years to over 16 million. By 2033 the number of people aged 85 and over is projected to more than double again to reach 3.2 million, and to account for 5% of the total population.²⁸ The 2011 census revealed that there around 70,000 (16.7%) people with a disability living in Bristol.²⁹ By March 2018, we have over 4,000 customers on our Priority Services Register (PSR), who, on average are registered for 1.67 services. This equates to 0.35% of the population registered to our PSR, suggesting we have more work to do to support our community in this aspect.

²⁷ Depart for Work and Pensions – family resources survey 2015-16

²⁸ Age UK - Later Life in the United Kingdom April 2018

²⁹ Bristol City Council- Equalities Profile Disabled People living in Bristol – October 2014

Having a disability means customers will be more likely to benefit from being on our Priority Services Register (PSR). Consequently, building on the positive feedback we receive when customers realise the range and quality of support, we are driving awareness of support available for customers in situationally vulnerable circumstances. We want the strength of our community relationship to mean that customers are aware of the range of support available to those in vulnerable circumstances. We want customers to be confident to ask for help, reassured by our reputation that they will be listened to and supported. Broadly, around 50% (as shown in Figure 17) of customers are aware of the non-financial vulnerability assistance measures offered³⁰ which reinforces the need for building awareness of the services available.

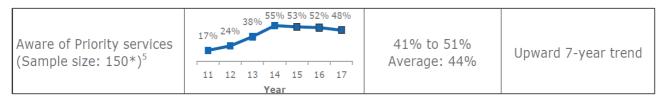


Figure 17 - Percentage of Customers Aware of Non-Financial Assistance Measures Available, CCW Water Matters 2017/18

The challenge for us, and indeed the wider industry, is that the propensity for customers to have a need to contact us is low which means the support available may not be obvious to them. In attempting to address this challenge we initiate proactive communication through social media (c3,500 followers Twitter, c2,600 followers on Facebook and c4,800 followers on LinkedIn³¹⁾ and more widely through our community work including attendance at various festivals with our award winning Water Bar.

During our engagement with customers we took the opportunity to ask what they felt we should be doing to improve awareness of the services we provide to the vulnerable. Suggestions included:

- Actively seeking who your vulnerable customers are;
- Better explanation/publication of priority service;
- Efficient/prompt/regular communication;
- Dedicated helpline/staff;
- Good customer service/staff training;
- Give advice.

Further consultation with key stakeholders suggested that we:

- Proactively and repeatedly reach out to raise awareness of the support on offer;
- Partner with a broader range of stakeholder groups;
- Increase the number and quality of channels through which customers can access support;
- Make better use of internal and external data to identify and target eligible customers.

Consequently, our Vulnerability Action Group (VAG), which is a joint working group with Pelican Business Services and Wessex Water, has a number activities planned that will increase our reach into the community and to those groups with the greatest potential to provide us with access to customers

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³⁰ CCWater, Water Matters, 2017-18

³¹ As at June 2018

affected by vulnerability risk factors. These will include but are not limited to health professionals, local community centres, advice centres, councils, social services and schools. We will go further by building on, and developing, important and supportive relationships with the Citizens Advice Bureau and other community partners. The agencies with whom we have an existing relationship, that are focussed on supporting those that are financially vulnerable, will as a matter of course refer customers not only for financial support but also for registration to our PSR where the customer would benefit. Full details of current and planned activities are set out in **Section C2 - Affordability and Vulnerability**.

6.4 Bespoke performance commitment – Vulnerable Customers

In line with our strategy of providing excellent customer experiences we asked for feedback on how to measure the service we provide to our customers who need extra support. We asked whether we should:

- 1. Measure the number of customers on our Priority Services Register?
- 2. Measure the number of customers contacted by the company about eligibility for our Priority Services Register?
- 3. Measure customer satisfaction from customers who have received support through our Priority Services Register?

The majority suggested measuring satisfaction (41%) with the second most popular being the number on the PSR (31%). Using this insight, we asked our customers at what rate would they expect us to improve the service (Table 13).

When we talked to customers about vulnerability assistance as part of our consultation, customers who supported the suggested and faster plans overall often mentioned vulnerability as a reason for their choice, seeing it as a worthwhile investment. However, some of our most engaged customers questioned whether satisfaction was the best measure for how much we are doing to support vulnerable customers and suggested an alternative metric based on the number of customers helped. However, amongst vulnerable customers, satisfaction was lower after they received support when they realised that it was available to them earlier, when they were most in need but had the least opportunity to seek assistance. This is why we target satisfaction rather than volume of customers on the Priority Services Register – excellent experiences require meeting individual customer needs, when they need our individual support most. Results from the January 2018 Institute of Customer Service Business Benchmarking survey, the UK's largest cross-sector benchmarking study, showed that the water and energy combined all-sector average was 78.1% satisfaction. We believe a reasonable stretch beyond this for the services we provide to vulnerable customers is 85% satisfied customers, with a long-term ambition of 100%.

				2024/25 Target				
Performance commitment	Unit	2019/20 Baseline Target	Slower improvement	Suggested improvement	Faster improvement	Long-term ambition		
Percentage of satisfied vulnerable customers	%	N/A (new measure)	80%	85%	90%	100%		

Table 13 - Vulnerable Customer Satisfaction Suggested Improvement Rates

The most popular plan is the suggested plan, despite the fact that the slower plan would add no cost to the customer bill. This shows that customers are willing to pay a small amount for improvements in this area. Twice as many customers support the faster plan for vulnerability assistance than customer experience, with future customers, affluent customers and rural customers all supporting higher levels of help for vulnerable people. In reality the average bill will not increase for these improvements – it is inbuilt to wider customer service and business investment. Research, though, required us to explore the extent of support as part of our draft business plan.

Safely affluent customers were more likely to select the faster improvement plan for vulnerability assistance, whilst social renters were more likely to select the slower plan.

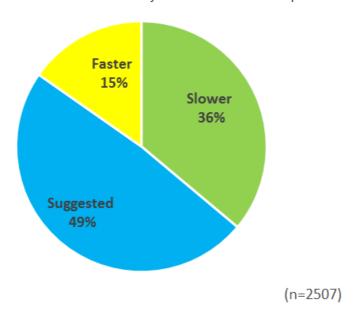


Figure 18 - Customer Feedback on 2024/25 Target

Consequently, we set our ambition at 85% and further details can be found in **Section C2 – Addressing Affordability and Vulnerability.**

In our final plan acceptability testing, 77% of customers agreed with our plans to improve vulnerable customer satisfaction and only 3% disagreed in the context of comparative information and the proposed bill.

7 Residential Retail Costs and Investment

7.1 Introduction

In this section we set out our historical OPEX and CAPEX expenditure, benchmark current performance both in the market and, econometrically, whilst establishing an appropriate forecast to achieve upper quartile retail efficiency in AMP 7.

The analysis, carried out on our behalf by Economic Insight, provided an in depth econometric analysis which we have reviewed and consequently derived a retail plan (cost) that is challenging. The methodology behind these calculations and the decision making process of how challenging we wanted to be is outlined in detail within **Section A1**.

7.2 Historical costs to run the Residential Retail business

The allocation of historical base costs between wholesale, retail residential/retail business and Metered/Unmetered has been revised to comply with the latest guidelines set out in OFWAT's methodology as outlined below;

- From 2015/16 and backwards the total costs have been split between unmeasured and measured via a proxy calculation (based on the number of measured/unmeasured households recorded in each year) as this was not previously split out for reporting purposes.
- In 2016/17 as well as the current year we also had to restate prior years in line with the most recent regulatory accounting guidelines. This meant that the restated figures differed to those previously reported under different Regulatory Accounting Guidelines.

After making the changes outlined above we get to our re-stated historical figures which reflect current Ofwat guidance, see Table .

The rise in OPEX from 2016/17 – 2017/18 is largely due to the factors outlined below:

- One off costs related primarily to Periodic Review spend;
- As Bristol Water exited the Retail Business market the Retail Residential control absorbed a higher percentage of total retail costs.

As all benchmarking and analysis was carried out based on 2016/17, we have made the judgement not to re-state our forecast, but instead absorb the increases outlined above into our efficiency target.

	12/13	13/14	14/15	15/16	16/17	17/18
Expenditure						
Customer services	2.53	2.63	3.01	1.82	2.01	2.39
Debt management	0.60	0.63	0.71	0.44	0.48	0.56
Doubtful debts	2.83	3.45	3.23	2.39	2.78	2.91
Meter reading	0.36	0.40	0.44	0.39	0.31	0.29
Other operating expenditure	1.89	2.10	2.25	2.33	2.52	2.98
Local authority and Cumulo rates	0.01	0.01	0.01	0.01	0.00	0.01
Pension deficit repair costs	0.00	0.00	0.00	0.00	0.00	0.00
Total operating expenditure (excluding third party services)	8.22	9.22	9.64	7.38	8.11	9.14
Third party services operating expenditure	0.00	0.00	0.00	0.00	0.00	0.00
Total operating expenditure, including third party services	8.22	9.22	9.64	7.38	8.11	9.14
Total depreciation on legacy assets existing at 31 March 2015	0.32	0.26	0.20	0.19	0.16	0.08
Total depreciation on assets acquired between 1 April 2015 and 31 March 2020	0.02	0.20	0.20	0.05	0.10	0.12
Total depreciation on assets acquired after 1 April 2020				0.00	00	J
Total residential retail costs (opex plus depreciation, excluding third party services)	8.54	9.48	9.84	7.61	8.37	9.34
Capital expenditure on assets principally used by retail	0.40	0.20	0.60	0.10	-0.04	0.31

Table 14 - Retail Historical OPEX Source: Bristol Water

7.3 Benchmarking

In its final methodology for PR19, Ofwat proposes to adopt an econometric modelling approach to assessing efficient costs for the household retail price control. In collaboration with Wessex Water we commissioned Economic Insight to provide an independent view as to the appropriate approach to retail cost assessment at PR19.

We asked them to firstly provide us with a better understanding of our retail cost efficiency, which would be used to inform our plans for household retail, and secondly, to help provide thought leadership in this important area, contributing constructively to developing a robust and practical approach to retail cost assessment. In determining the level of appropriate costs for retail, a detailed econometric cost benchmarking analysis for household retail was carried out.

Our current retail cost profile is benchmarked to the market by Economic Insight, who compared our position to all Water companies in England and Wales. The below table summarise their findings, showing each companies' efficiency challenge to reach upper quartile performance under two varying model sets;

• We have used econometric models to establish an "efficient" retail cost benchmark consisting of residential retail costs as well as separate benchmarking of bad debt costs. Economic Insight carried out two model sets, which had different incorporations of customer numbers and scope (dual versus single bill customers). Model set A includes separate dual and single service customer variables. Model set B includes separate variables for the total number of customers and the number of single service customers. We have taken equal weighting from these two groups of models in order to arrive at our Central Case to achieve upper quartile performance.

In relation to bad debt, and consistent with the evidence reviewed at PR14, we find that both socioeconomic factors, deprivation (which might affect customers' propensity to go into arrears / default) and average wholesale bill size (which impacts the absolute value at risk through default) are valid drivers. There are numerous measures of socioeconomic performance, and our descriptive statistics analysis is generally consistent with a range of measures being plausible and credible. In addition, we consider that population transience (the propensity of people to move in to, or out of, a region) might also affect debt costs. For example, it might be related to the propensity to fall into arrears, but also might positively impact company debt management costs.

C	То	tal efficiency challen	ge	
Company	Model set A	Model set B	Average	
AFW	53.1%	17.6%	35.3%	
ANH	17.5%	5.8%	11.6%	
BRL	10.8%	0.0%	5.4%	
DVW	0.0%	16.5%	8.2%	
NES	0.0%	0.0%	0.0%	
PRT	3.4%	3.4%	3.4%	
SES	0.0%	10.7%	5.4%	
SEW	51.8%	9.2%	30.5%	
SRN	35.0%	44.3%	39.7%	
SSC	28.7%	16.4%	22.6%	
SVT	20.4%	5.1%	12.8%	
SWT	20.0%	16.9%	18.4%	
TMS	11.4%	18.5%	15.0%	
UU	55.5%	17.1%	36.3%	
WSH	23.3%	28.0%	25.6%	
WSX	0.0%	5.6%	2.8%	
YKY	11.5%	0.0%	5.7%	

Table 15 - Econometric Benchmarking Results Source: Economic insight³²

The Econometric benchmarking analysis of catch-up efficiency found that we are currently in the upper tier of water sector firms with respect to household retail efficiency. This finding is consistent with previous studies that show us as having a highly efficient retail service. If we take the average column as an aggregate of their benchmarking work we can see that we are currently one of the better performing companies, ranking 5th out of 17 in terms of the gap to upper quartile efficiency. Through

³² Economic Insight: Household Retail Cost Assessment for PR19, February 2018

our existing joint venture partnership with Pelican Business Services a number of robust historical cost reduction initiatives over recent years has resulted in a reduction of the scope for further efficiency savings. That said, where the opportunity exists, we will exploit it.

7.4 Household Retail Efficiency Modelling

Following on from the benchmarking exercise, we summarise the options presented by Economic Insight with regards to one off efficiency, frontier shift and Input Price Pressure.

Economic Insight presented us with three scenarios based on target performance of average, upper quartile and upper quintile and the efficiency gains necessary to reach these targets.

Key findings are summarised below.

Catch-up Efficiency

Analysis by Economic Insight revealed that:

- Over the course of PR19 it would seem that an appropriate level of efficiency catch-up (over the whole of PR19) is likely to be in the range 0 10.8% which equates to 5.4% as a central estimate (see Table 16 below for details).
- This is equivalent to making annual efficiency savings of between 0% and 1.60% p.a., with a central case of 1.08% p.a. (we note Ofwat is not proposing to apply a glide-path at PR19 and we have therefore not adopted this approach).
- A range of qualitative evidence demonstrates that we have strong management practices in place that help to minimise retail costs.

Parameter / scenario	Low (less challenging)	Central	High (more challenging)
Model weights	Equal weights	Equal weights	Equal weights
Residual adjustment	None	None	None
Benchmark	Average	Upper quartile	Upper quintile
Glide path	5 years	None	None
<u>Total</u> efficiency challenge over PR19 %)	0.00%	5.40%	8.00%
Average catch up efficiency challenge pa (%)	0.00%	1.08%	1.60%

Table 16 - Economic Insight Analysis³³

As outlined above we are already one of the more efficient companies in our industry, operating in the top half of the market. Based on the evidence provided by Economic Insight we have given ourselves the challenge of becoming more efficient so that we rise to the upper quartile of our industry.

The Ofwat efficiency modelling consultation included a range of efficiency models, and we have also carried out unit cost calculations. Overall in the Ofwat consultation our costs set the frontier of efficiency for total retail costs and retail costs without bad debt, but depending on how deprivation is adjusted for there was a range of bad debt cost efficiency positions. As with wholesale costs, we believe that retail modelling should be on a whole business Totex basis, rather than separating out individual cost elements, in particular bad debt and debt management modelling separate from the rest of the retail cost base (which for instance includes wider vulnerability and social tariff cost delivery). The latest unit costs for 2017/18 appear to confirm our retail efficiency position (based on the average basis used at PR14):

³³ Economic Insight: PR19 Retail household IPP analysis and evidence, February 2018

£/customer 2017/18	Bristol cost per household	Industry average
Unmeasured: Debt & Debt	£8.0	£9.0
management		
Unmeasured: Other retail	£10.8	£12.8
Measured: Debt & Debt	£6.3	£7.2
management		
Measured: Meter reading	£1.2	£2.4
Measured: Other retail	£12.0	£15.5

Table 17 – Unit Cost Comparison Source: Bristol Water

Frontier Shift & Net IPP

The regulatory framework also requires evidenced forecasted levels of future changes in cost and efficiency.

As per PR14, we recognise there will be no allowance for any automatic indexation of inflation within the retail control. However, efficient cost baselines will include an allowance for input price pressure (IPP).

In summary, the IPP analysis and evidence finds that:

- IPP for HH retail was found to range from 0.39% to 2.43% broadly 0.93% over the period 2020/21 to 2024/25. Effectively, this is 1.95% less catch up efficiency equivalent of c.1% p.a.
- Retail frontier shift in efficiency was found to be -0.42% to 1.1% for the years 2007-2015 and between 1999 2008 respectively. We note that the lower numbers more recently mean a long term range of 0.42% between the years 1999-2015.

Overall, the modelling undertaken and associated calculations has resulted in three scenarios – low, central and high (see Table 18):

Modelled Element	High relative efficiency / high cost pressure	Central Case	Low efficiency / low cost pressure
Gross IPP	2.43%	1.95%	1.89%
Frontier shift	0.42%	-0.42%	-1.10%

Table 18 - Low, Central and High Scenarios to Generate Efficiency Gap Estimates Source: Economic insight³³

The details behind these figures and our process in selecting the most appropriate scenario to our situation are detailed below.

Frontier Shift

Our central case covers the 16-year period from 1999 and 2015. It therefore includes 8 years post financial crisis and 8 years pre financial crisis (when productivity was nearer to its long-term average). This approach attaches equal weight to both periods – and thus implicitly assumes that productivity will improve over PR19 back towards its long-term position.

Our low scenario focuses on the post-crisis period (2007 to 2015). As such, it implicitly assumes that the current flat line performance will continue. Given the current outlook for the UK, we also consider this to be plausible.

Our high scenario uses the period from 1999-2008. As such, it 'ignores' the post crisis period and the UK's decade-long low productivity performance. Under this scenario, one would implicitly be assuming

that the UK quickly returns to its long-term productivity trend. We consider this to be less plausible than our central and low scenarios.

On balance, using the central scenario is appropriate. In support of this assertion, the central scenario commensurate with the long-term average has been recommended by Economic Insight, and therefore citing this scenario is a balanced and neutral interpretation of the data. Consequently, this gives an annual frontier shift figure of 0.42%, see Table 1919.

Scenario / cost type		Low	Central	High
Time-period data based on		2007-2015	1999-2015	1999-2008
D	Opex	-0.42%	0.42%	1.10%
Retail	Capex	-0.31%	0.28%	0.56%

Table 19 – Scenarios Source: Economic insight³³

Input Price Pressure

As articulated earlier, we anticipate that we will face input price pressures on our household retail costs that are beyond management control. This is supported by the research we have obtained from Economic Insight which sought to determine the expected IPP that the retail business is expected to be subjected to. These increases relate to labour, materials, IT costs, and doubtful debts.

Central estimates derive from:

- Staff costs being forecast based on the wedge to average UK wages (2 digit SOC) approach;
- Doubtful debts being forecast based on the regional econometrics approach;
- IT and postage costs being forecast based on the wedge to CPI method; and
- Other costs being forecast based on independent forecasts (CPI).

High estimates derive from:

- Staff costs being forecast based on independent forecasts (OBR);
- Doubtful debts being forecast based on the CPIH approach;
- IT and postage costs being forecast based on the wedge to CPI method; and
- Other costs being forecast based on independent forecasts (CPI).

Our low estimates derive from:

- Staff costs being forecast based on the wage econometrics approach in % changes (2 digit SOC code):
- Doubtful debts being forecast based on the national econometrics approach;
- IT and postage costs being forecast based on the wedge to CPI method; and
- Other costs being forecast based on independent forecasts (CPI).

We propose to apply the medium scenario, an annual rate of 1.95% as noted in Table 20.

Calculation step	Scenario	2020 / 21	2021 / 22	2022 / 23	2023 / 24	2024 / 25	Average over PR19
	High	2.30%	2.48%	2.46%	2.46%	2.46%	2.43%
	Medium	1.74%	2.09%	1.94%	1.97%	1.99%	1.95%
	Low	1.68%	2.03%	1.87%	1.91%	1.93%	1.89%

Table 20 - Economic Insight IPP Assessment³³



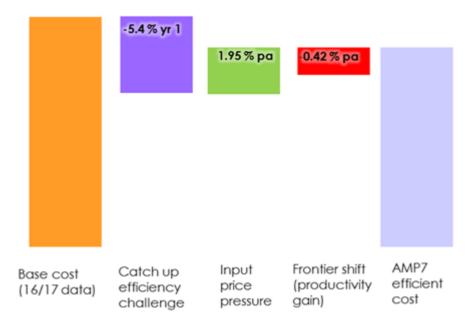


Figure 19 - Summary of the Modelling Work Source: Bristol Water

7.5 Forecast Costs within the Retail Business

Using the assumptions from the modelling a one off efficiency, frontier shift and IPP are then applied to our OPEX. As well as completing a top down forecast and efficiency challenge we undertook an extensive review which found that materially the forecast costs were the same, which provides comfort that our plans are deliverable.

Our forecast of retail household operating expenditure for the PR19 begins with our 2017/18 base year operating expenditure and introduces:

- New operating costs arising from new connections and meter optants;
- Input cost pressure (net of efficiency challenge).

Changes to Base Operating costs

Underlying changes to our cost base, costs in relation to new connections and movement within the customer base from measured to unmeasured connections, and its impact are briefly set out below.

New connections

Our Water Resources Management Plan (WRMP) sets out the expected population growth and subsequent new connections to our network, across our supply area. As a result of increased household properties, additional operating costs for the retail business will be noted.

These additional costs include Customer Service, Debt Management, Doubtful Debts and Meter Readings. They exclude Other Operating Expenditure costs on the basis that these are mostly made up of fixed costs which will not be impacted. We calculated the average cost (per property) of each of these components based on our 2017/18 actual figures, and applied it to the number of new connections to obtain the overall additional operating costs

Table 21 sets out the forecast for increased retail household operating costs each year.

	2020/21	2021/22	2022/23	2023/24	2024/25
New connections (No. of households) per year	6092	5951	5466	5374	5250
New connections (No. of households) cumulative	23479	29430	34896	40270	45520
Additional retail household costs (£m) cumulative	0.3	0.38	0.45	0.52	0.59

Table 21 - Household Retail Forecast, New Connections Source: Bristol Water

Household meter optants/selectives

The operating cost to serve a customer with a metered supply is higher than for a customer with an unmetered supply.

This is due to the additional costs of reading the meter (usually twice a year for household customers), raising additional bills and managing varying payment arrangements. We calculated the average incremental cost (per property) for these activities based on our 2017/18 actual figures, and applied it to the number of optants and selective meters to obtain the overall additional operating costs.

Table 22 sets out the forecast for increased household retail operating costs each year, in 2017/18 prices.

	2020/21	2021/22	2022/23	2023/24	2024/25
	£m	£m	£m	£m	£m
Optants/selectives (No. of households)	21987	7065	7435	7664	8179
Optants/selectives (cumulative)	79883	86948	94383	102047	110226
Additional retail household costs (£m) cumulative	0.183	0.2	0.217	0.234	0.253

Table 22 - Household Retail Forecast, Meter Optants Source: Bristol Water

Applying One-Off Efficiency Catch Up/Frontier Shift/IPP

Table 23 shows how we build up to our efficient OPEX forecast, showing the impact of new properties, optants and the net impact of our one off / frontier / IPP efficiency figures:

	2020/21	2021/22	2022/23	2023/24	2024/25	AMP Total
Base OPEX (2017/18)	9.1	9.1	9.1	9.1	9.1	45.7
Additional Cost of New Properties	0.3	0.4	0.4	0.5	0.6	2.2
Additional cost of Optants/Selectives	0.2	0.2	0.2	0.2	0.3	1.1
Total pre IPP & Efficiency	9.6	9.7	9.8	9.9	10.0	49.0
Net Efficiency	- 1.0	- 0.9	- 0.8	- 0.6	- 0.5	- 3.7
Efficient OPEX post IPP & frontier shift	8.6	8.8	9.1	9.3	9.5	45.3

Table 23 - Our Efficient OPEX Forecast Source: Bristol Water

In summary the costs are broken down by activity types in Data Table R1 and this is demonstrated for the period 2020/25:

Expenditure	20/21	21/22	22/23	23/24	24/25
Customer services	2.3	2.4	2.5	2.5	2.6
Debt management	0.5	0.6	0.6	0.6	0.6
Doubtful debts	2.7	2.8	2.8	2.9	3.0
Meter reading	0.4	0.4	0.4	0.4	0.4
Other operating expenditure	2.7	2.7	2.8	2.8	2.8
Local authority and Cumulo rates	0.0	0.0	0.0	0.0	0.0
Pension deficit repair costs	-	-	-	-	-
Total operating expenditure (excluding third party services)	8.6	8.8	9.1	9.3	9.5
Third party services operating expenditure	-	-	-	-	-
Total operating expenditure, including third party services	8.6	8.8	9.1	9.3	9.5

Table 24 - Cost Breakdown by Activity Source: Bristol Water

As the bulk of our efficiency savings are applied immediately in the form of a one off catch up we see a slow upward trend throughout AMP 7, reflecting the increase in our customer base and the impact of IPP. Figure 20 provides a pictorial representation of a build-up of our efficient AMP 7 costs.

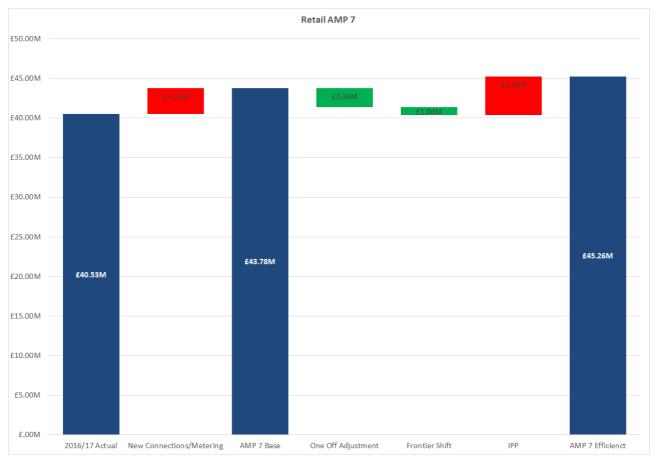


Figure 20 - Retail AMP 7 Cost waterfall Source Bristol Water

7.6 Activities to reduce operating cost to serve

Table 25 sets out our expected operating cost to serve per household from 2017/18 which demonstrates that we will reduce our cost serve to £17.91 per household by 2024/25 from £19.97 in 2019/20.

	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Cost Per Household	18.65	18.95	19.97	16.95	17.19	17.42	17.66	17.91

Table 25 - Cost to Serve - Source: Bristol Water

Over AMP 7 we see a continued trend towards metered households, to the extent that they are expected to make up 75% of our Retail cost base by 2024/25. Table 26 below highlights this trend;

Total Cost ££	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Measured	4.75	5.43	5.99	6.29	6.59	6.91	7.24
Unmeasured	3.36	2.94	2.63	2.55	2.46	2.36	2.26

Table 26 - Trend towards Metered Households Source: Bristol Water

On an operational cost per household basis there will continue to be a premium associated with servicing metered households due to reading the meter (usually twice a year for household customers), raising additional bills and managing varying payment arrangements – see Table 27;

Cost Per Household	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Measured	20.01	20.88	17.70	17.90	18.11	18.32	18.53
Unmeasured	17.63	18.50	15.47	15.64	15.82	16.00	16.18

Table 27 - Cost per household; metered and unmetered Source: Bristol Water

In order to calculate our retail element of the total bill we take the above and apply depreciation, asset recharges from Wholesale and a Retail margin. Table 28 sets out the additional impact these elements have on Household Retail cost.

Retail Costs Per Household	Units
Households connected for water only - metered	1000
Allowance per measured water customer inclusive of DPC margin - nominal	£

Annual Retail								
2020- 21	2021- 22	2022- 23	2023- 24	2024- 25	AMP7			
338	351	364	377	390	364			
21.61	22.15	22.51	22.70	22.76	22.37			

Households connected for water only - unmetered	1000
Allowance per unmeasured water customer inclusive of DPC margin – nominal	£

170	163	155	148	140	155
19.18	19.63	19.94	20.08	20.11	19.80

Revenue metered	£m
Revenue unmetered	£m
Tota Retail Revenue	£m
Average Household bill – Nominal	£

7.307	7.778	8.194	8.559	8.887	8.145
3.260	3.197	3.100	2.968	2.808	3.073
10.567	10.975	11.294	11.527	11.695	11.217
20.80	21.35	21.74	21.96	22.06	21.60

Table 28 – Retail Cost Per Household Source: Bristol Water

To achieve this efficiency, and therefore reduction at today's prices, we will leverage new and existing technologies and improve the range of digitally available services, allowing more customers to "self-serve" as well as continuing to refine our processes to support reductions in "bad debt."

When looking to invest in a new solution/innovation, we have looked at the different aspects, namely:

- · What are the key business drivers;
- Technology drivers;
- · Business values;
- Technology values.

We use these elements to shape the value of the solution, with value being defined as satisfaction of needs over use of resources. The value of the solution will decrease as the use of resources grows and therefore analysing our existing processes and service is vital if we are to ensure appropriate value is gained from any intervention we make.

To drive value, and in turn reduce cost to serve, we will focus on further exploiting the use of digital channels, integrating more activities to be customer self-serve and examining ways in which we can effectively use business automation technologies such as Robotic Process Automation (RPA) and Artificial Intelligence (AI). We have trialled RPA in other parts of our business and can demonstrate how it improves efficiency by automating repetitive, manually intensive tasks and performing them far faster.

Equally, we recognise some customers will still wish to continue to use traditional channels. Therefore, we will continue to invest in our people to improve first time resolution (using machine learning technologies) thus reducing our cost to serve by avoiding rework. Implementation of our new billing system is pivotal in driving a multi-channel experience for the customer regardless of which channel they contact us through. In doing so, this enables innovative development of our communication with customers via multiple channels: email, social media, SMS, web-chat etc. Furthermore, we will personalise information to customers based on a combination of consumption and behavioural data, which we will augment with open data sources, thus ensuring we are pro-active rather than reactive in our communications thus reducing cost to serve.

Additionally, we anticipate our current investment in self-serve integrations will enable customers, developers and retailers to interact (complete activities) as they are able to through traditional channels. Customers will be able to manage their billing and account transactions, complete home moves, update meter readings, view their consumption graphs, order water-saving devices and learn about saving water. Operationally, customers will be able to report a problem, view planned work in their area and complete web forms. Developers will be able to request quotations. Retail portals will enable retailers to submit jobs electronically.

Automating high-volume, standardised process steps within the end to end customer journey will result in accurate data being available more quickly and our teams being able to focus on managing exceptions and areas that benefit from closer scrutiny, thereby adding greater value for our customers. Automating business processes will reduce cost to serve by finding efficiencies, helping to streamline customer processes.

Efficiency savings will allow us to make service improvements in the areas that customers have told us are their priorities, and increase value for money. Another way that we will do this is by refining our debtor strategy to further improve our success in that area.

We have also as part of our RORE analysis considered retail cost risks and opportunities. We set this out in **Section C6 – Financeability**, **Risk & Return**, **and Affordability** as the retail impact on RORE is consolidated at an appointee level in the Ofwat financial model.

7.7 Investment & Depreciation

Our historical investment in retailing activities (2017/18 prices for comparison to AMP7 in nominal terms) is summarised in Table 29. Investment in AMP3 is higher than in subsequent periods as it includes inception costs for BWBSL, otherwise known as Pelican Business Services. Subsequent to its inception, investment had been mainly on software maintenance and enhancement, together with vehicles and office equipment. The anticipated level of investment in household retail over AMP7 is generally consistent with recent years. AMP 7 spend also includes our share of a new billing system.

AMP3	AMP4	AMP5	AMP6	AMP7
£6.437m	£1.724m	£1.891m	£1.595m	£2.081m

Table 29 - Historical & Proposed Capital Investment Source: Bristol Water

Included within our household retail control we have accounted for two broad investment initiatives, a new billing system and customer service improvements:

Customer Service Initiatives (£0.79m) is a programme of expenditure to meet anticipated customer expectations and requirements. This investment includes upgrading CRM systems, improving telephony, enhancing our website functionality and making other improvements to the way we interact with other partners. This investment is required to fulfil the expectations of our customers.

Joint Billing (£1.25m) is a rolling programme of billing services covering software, vehicles and office equipment at Pelican Business Services. These costs are shared jointly with Wessex Water.

For our CAPEX forecast we have applied ongoing IPP and Frontier Efficiency savings. Due to the variable nature of Capital Expenditure a one off efficiency saving is not appropriate, as it would potentially exclude investment which will allow us to better serve our customers and increase future efficiency. The costs are deemed efficient through joint procurement via Pelican. We have however applied IPP of 0.74% which reflects the increased costs of IT related spend (the bulk of our forecast CAPEX is IT related) and frontier shift of 0.28% which reflects CAPEX specific productivity trends.

Table 30 breaks down our AMP 7 CAPEX spend across the relevant categories;

Total Capex	2020/21	2021/22	2022/23	2023/24	2024/25
	(£000's)	(£000's)	(£000's)	(£000's)	(£000's)
Vehicles, Gen IT, Metering, AMR, Portal, Mangt Info & Computershare	125	126	127	127	127
Billing System	1,065	51	51	51	52
Office eqpt	8	8	8	8	8
General building & Building projects	28	28	28	28	28
TOTAL Capital BW Post IPP	1,225	213	214	214	215

Table 30 - AMP 7 CAPEX Spend

7.8 Conclusion

Using econometric benchmarking we believe that a one off efficiency of 5.4% will place us in the upper quartile of water sector companies. We will maintain this by applying a net adjustment of a 0.42% efficiency frontier shift & 1.95% IPP throughout the AMP which result our operating cost to serve improving from £18.65 in 2017/18 to £17.91 by 2024/25.

Our OPEX expenditure for household retail comes to be £45.26m (nominal) after adjustments & net efficiency gains (£3.7m) have been applied to our cost base.

8 Debt Management and Performance

8.1 Introduction

Increased pressure on household budgets has been caused by a number of macro-economic factors, rising interest rates, welfare reform, inflation, and a reduction in disposable income within UK households means that more customers are struggling to pay their bills. Real wages are falling at rates not seen in four years; some consumers are maintaining living standards through unsecured debt, currently at over £200bn, its highest since 2008. The startling trend is that this is growing by 10% per year, and is predicted to reach £86k per household by 2022.³⁴ Funding cuts and welfare changes, such as the introduction of universal credit, are predicted to make it more difficult for customers to manage money and potentially more difficult to access support and advice.

Our bad debt position is driven by our customers' ability to pay their bills and is expected to be 3.45% (2018/19) of retail revenue. Our debt collection activities are conducted by Pelican Business Services who manage revenue collection and debt management policies on our behalf.

How we ensure our bill is affordable for all and the activities and inventions to support those who find themselves in financially vulnerable circumstances is set out **Section C2 – Addressing Affordability and Vulnerability**.

8.2 Our current approach to managing debt

Aside from the interventions we set out earlier in '6.2 Addressing financial vulnerability', we have a series of activities that are carried out by Pelican Business Services on our behalf which are set below in Figure 21.

We manage bill collection through our billing system (Rapid) and debt recovery through our debt collection system (Tallyman). Our processes have been built within the confines of the systems we have and the position we have as a creditor where we have limited sanctions and a duty to continue a relationship with our customers. Currently, we do not share data with Credit Reference Agencies which means that we do not receive reciprocal information from them, nor do we use enforcement agents although we are active participants of a benchmarking forum in the utilities sector and we attend the Debt Strategy Network forum within the water industry to understand how our processes compare with others.

³⁴ Baringa Partners, 'Reducing Customer Debt: Macroeconomic Trends', September 2017

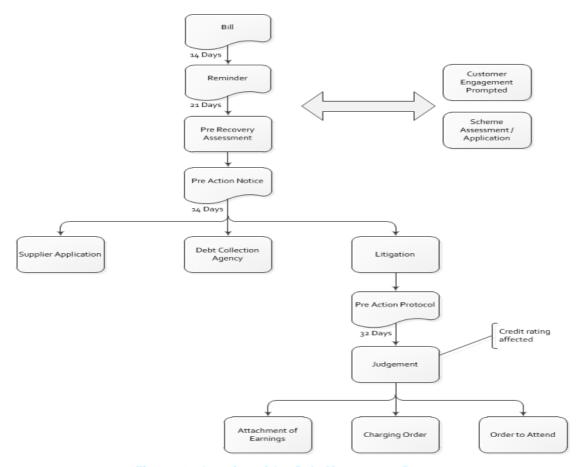


Figure 21 - Overview of Our Debt Management Process

As our customers go through the debt cycle each stage of the process is designed to generate contact from the customer in order to create dialogue. Whenever a customer makes contact with us (or we make contact with them) we seek to understand their personal circumstances and establish what would be an affordable payment to repay the debt. This includes assessing eligibility for one of our social tariffs and referring them to our specialist team to complete an application for the appropriate scheme. Additionally, all our teams are trained to signpost our customers to debt advice agencies to make sure those customers who find themselves financially vulnerable are supported with holistic debt advice, as it is likely that the water bill is not their only debt.

We recognise that our current documentation is homogenous in design and therefore not tailored to a customer's circumstance or previous payment history, we plan to change this as we move forward (as detailed later in this section).

To support customers in debt, our restart scheme (a two-year payment plan designed to cover a customer's current usage and a proportion of their debt), can be used in conjunction with our range of social tariffs and is offered to eligible customers. We have simplified the application process which allows all our customer facing colleagues to make and accept restart applications. We continue to support our employees by providing ongoing training which enables them to recognise where a customer may be vulnerable and to support the customer through an application for a scheme as well as negotiating and asking customers for payment where possible.

We recognise that we have opportunities to leverage technology, make better use of data and our customer segmentation. Whilst we have a collection rate of c96.8%, we know there is more that can be done to improve our success. The improvements depend largely on better data and a more

sophisticated system allowing us to segment our customers and manage our relationship with them accordingly. This is the thrust of our improvement as we head towards AMP7.

8.3 Future activities to improves bad debt performance

Whilst it is difficult to predict the likely impact of changes to the UK's macroeconomic environment during the next AMP (including, of course, any impacts of Brexit), there remains a requirement for us to improve our collection of revenue. In formulating our plans, we recognise that the roll out of Universal Credit until 2022 will likely have a negative impact on our ability to collect. Indeed, many recipients have highlighted that the frequency and the amount of payment has changed. Furthermore, early adopters of Universal Credit have found it increasingly difficult to budget as a result of the changes, thereby impacting their ability to pay for essential household bills, including their water services.

Consequently, we have already seen some impact in our current collection rates. This is a challenge that is likely to worsen in the future. In collaboration with Pelican Business Services, we have developed a set of interventions and initiatives that mitigate the impact of Universal Credit, and go further, which results in an improved revenue collection rate; 97.32% (96.8%) by 2021/22.

The implementation of our new billing system will support us in being able to refine our collection processes and will provide a tailored approach to our customer segments. We will not only be able to segment our customers within the billing system we will allow "Tallyman" to segment customers into highly specific customer-types according to a wide range of variables, thus providing us greater flexibility in managing customers and assigning accurate collection or support priorities. This means that we will be able to take a different approach with each customer segment, ensuring that debt recovery is appropriate for a customer's circumstances, rather than our current 'best-fit' according to our systems. Tailoring our approach according to customer segment will allow us to use behavioural insights data to inform our debt recovery. Such customer segmentation will also enable us to "data share" with credit reference agencies as well as making an informed assessment of our new customers and existing customers in our supply area in much the same way energy providers do, thus enabling us to provide an early intervention before the customer falls into debt. Subject to the 2017 Digital Economy Act we will share data with the DWP which will support us in tailoring messages to customers who are likely to be in a vulnerable circumstance.

Tailoring communication is not just for those customers who are unable to pay. For example, the wording on a reminder letter will be tailored according to the customer payment history as well as segment – stronger wording for 'repeat behaviour' customers for example. In data sharing with Credit Reference Agencies, we would report on our overdue payments at this point in the cycle. This means a customer's credit file would be impacted much sooner in our collections process than it is currently. For customers in a segment who we perceive as having means to pay and a relatively good credit record, we may want to give more prominence to the credit file impact in order to prompt action. Other water companies, who have begun sharing data, have experienced an impact in the speed of payment for those customers who leave it to the very last minute on the litigation route before paying.

As well as impacting debt recovery performance, effective segmentation and relationship management would impact our customer service and reputation. Previous analysis of complaints has shown that a significant number are regarding the reminder letters and from those customers who have temporarily fallen on hard times and were late with payment for the first time. A more dynamic billing system could recognise these factors and produce a more customer friendly reminder which might acknowledge their previous payment history and goodwill for example. Figure 22 details our "to be" debt management process.

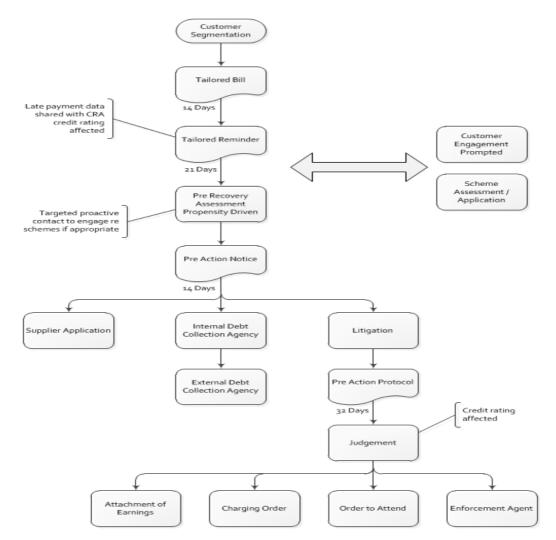


Figure 22 - Overview of "To Be" Debt Management Process

Customer segmentation will also support more cost effective use of litigation / enforcement action. Better identification of our financially vulnerable customers, earlier in the debt cycle, will reduce the number and improve the quality of claims we make. We will further improve our litigation process by introducing the use of the bulk trace facility at a credit reference agency prior to sending the customer's account to the court to issue a claim. This process would reduce the number of claims issued incorrectly, due to customer moves (currently 6%), and would save lost court fees (on average £50 per customer, around £20,000 per year). This, in turn, would help us in making better decisions to proceed with action based on the likelihood of payment.

By having greater confidence in the means to pay of those customers issued with a judgement, we can then explore the opportunity to use enforcement agents in the future to recover outstanding debt.

As customers become more adept and self-service, through our customer portal, we are likely to see our own data quality improve. Subject to data protection laws and agreement with other companies, such as energy providers, we will be able to augment this data which will significantly improve the likelihood of tracing customers who have gone away and ability to recover revenue. A summary of our action is provided in Table 31.

HH Collection Rate Changes	Rate	Comments
Current S/S HH Collections	96.80 %	
Universal Credit	(0.43)%	Following the introduction of Universal Credit, deductions from benefits ranks poorly compared to previous deduction. Consequently this has led to a reduction in existing collections which early estimates indicate may be as much as £2m p.a. of collections being uncollected
Customer Centric Billing System	0.20 %	Moving from a property centric to a customer centric system which will result in improved "gone away" debt. Recent bulk trace work suggests that 85% of matched gone-away customers still live within the Bristol Water area.
Bulk Trace	0.07 %	Whilst mitigated by the above activity we anticipate further reach from his activity
Better Use of DCAs	0.05 %	Maximising performance on allocations of debt
Use of Enforcement Agents	Low	An option exists to use enforcement agents for customers that clearly won't pay (rather than can't pay). Council tax collection rates for North Somerset are c. 45% for debts that are passed to enforcement agents
In-House Dialler	0.12 %	Noted better resource allocation utilising improved dialler
Increased Credit Resource	0.10 %	Cost benefit analysis reveals net increase in collection
Data Driven Workflows	0.10 %	
Behavioural Insights	0.20 %	Tailoring our messaging will ensure that we maximise desired outcomes – this could be different styles of letters depending on the customer age, highlighting potential consequences most relevant to that customer, promotion of social schemes, etc. This will also include a general review of letter styles to ensure the format and language are considered best practice
Share Data	0.10 %	Including CRA and other utilities
Future S/S HH Collections	97.32 %	

Table 31 - Summary of Actions to Improve Collection Rates

8.4 Bad debt IPP Growth

It is widely accepted that, in relation to doubtful debts, two key cost drivers are:

- (i) bill size
- (ii) socioeconomic factors such as deprivation and thus, relatedly, the wider macroeconomic environment.

From a retail perspective, bill size is primarily driven by whatever regulated prices are set at the wholesale level. This, in turn, implies that the Input Price Pressure (IPP) relating to bad debt in the retail part of the supply chain is, to a large degree, determined by the 'K factors' Ofwat set for the water and wastewater wholesale elements of the PR19 price review.

Econometric cost benchmarking analysis, conducted by Economic Insight, suggests that one approach for projecting bad debt gross IPP would be to project these costs based on CPIH. The rationale is that CPIH is accounted for in the regulatory approach for wholesale. Therefore, by definition, it is an inflationary pressure that flows through to retail. However, the risk of simply assuming CPIH as the basis for projecting doubtful debt IPP is that it ignores the likely impact of changes to the UK's macroeconomic environment during PR19 (including, of course, any impacts of Brexit) which we eluded

to earlier. Interestingly, the ONS and OBR data available suggests that GDP growth in the UK is expected to reduce slightly in comparison to the recent past, starting to rise again slowly from 2020 onwards. Consequently, they conclude the doubtful debt IPP projected by the modelling set out in Table 32 that, on average; we are likely to face gross IPP in the range of 1.4% to 1.8% per annum in relation to doubtful debts. ³⁵

Method	2020/21	2021/22	2022/23	2023/24	2024/25	Average
СРІН	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%
National	1.2%	1.6%	1.3%	1.4%	1.4%	1.4%
Regional	1.4%	1.8%	1.4%	1.5%	1.6%	1.5%

Table 32 - Doubtful debt IPP projections³³

Economic Insight investigated the correlation between benefits expenditure and bad debt finding that a regional approach to econometric analysis generally resulted in a higher forecast bad debt inflation when compared with a national approach.

Despite the IPP outlined above we see an overall improvement in our Doubtful Debt from £2.91m in 2017/18 to an average of £2.85m across AMP 7 due to our stretching efficiency challenge.

³⁵ Source: Economic Insight analysis of ONS and water companies' data

8.4.1 Bad Debt Related Forecasts

In determining our debt management approach and cost forecasts, we have carefully considered the results of our Econometric Cost Benchmarking Analysis for debt related costs.

The assumptions provided by the econometric modelling illustrate:

Method	2020/21	2021/22	2022/23	2023/24	2024/25
	(£m's)	(£m's)	(£m's)	(£m's)	(£m's)
Doubtful Debt IPP	0.2	0.25	0.31	0.36	0.42
Doubtful Debt Cost (Pre-efficiency) – Gross IPP	3.23	3.31	3.39	3.48	3.56
Doubtful Debt Cost (Post-efficiency challenge) – Net IPP	2.71	2.78	2.85	2.92	2.99

Table 33 - Econometric Cost Benchmarking Analysis Source: Bristol Water

To some extent the impact on bad debt can be seen in terms of the level of debt write-offs. Our policy is to write-off all revenue outstanding for 48 months or more. However, variations in write-off policy between different water companies means that this is not a particularly good comparator for levels of bad debt.

In view of our econometric modelling, carried out as part of our PR19 cost assessment, we propose a planned improvement in our collection rate of 0.52% as part of meeting our modelled efficiency challenge for the period. To help meet our target level of efficiency we will improve our level of unpaid bills as a proportion of revenue to 2.9% (from 3.4%).

In reducing and monitoring bad debt performance, we believe that a more robust measure is in the level of cash that we are unable to recover from customers, measured through residual debt or revenue collection rates. Generally, we consider any revenue not recovered for more than four years to be uncollectable.

8.5 Conclusion

In relation to debt management and bad debt, we have a range of robust retail cost management processes in place. We expect to make savings due to our effective management of bad debt despite a challenging environment due to a number of macroeconomic factors beyond our control.

Through a package of measures, we will improve our collection rate from 96.8% to 97.32%. We propose to increase our revenue collection by around 16% which is needed to meet our modelled efficiency challenge for the period. As a proportion of revenue, this means a reduction in bad debt to 2.9% (from 3.4%).

9 Void and "Gap" Sites - residential

9.1 Performance Commitment

	Unit	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Void properties	%	1.9	1.9	1.9	1.8	1.8	1.8

Table 34 - Residential Void Predictions

9.2 Introduction

Void properties are those household properties, within our supply area, which are connected for water service but do not receive a charge as there are no occupants. We do not include properties that do not receive a bill because it would be uneconomical to do so.

We recognise that having high levels of voids and long-term voids can result in reduced revenue, affecting financial viability in the long-term. Additionally, a high-level of voids places an unfair burden on customers who pay their bills and therefore their share of the cost of maintenance and repairs of our water network. We will work hard to ensure that we minimise the number of properties that use our service whilst claiming to be unoccupied.

Gap sites are properties where water services are being used, but we may not have the correct location of the property and therefore customers cannot receive a bill. These are more challenging to benchmark as, in effect, we don't know what we don't know. Equally, we recognise that finding such properties lessens the burden on other bill payers (as with void sites); therefore, we will work hard to find these properties.

9.3 Void performance

Properties can enter a void state for any number of reasons, many of which are legitimate, such as a tenant moving out of a property with a new occupier not being found immediately. Our ambition has always been to minimise the number of properties being void on our billing system. Our current upper quartile performance attests to this fact, see Figure 23923.

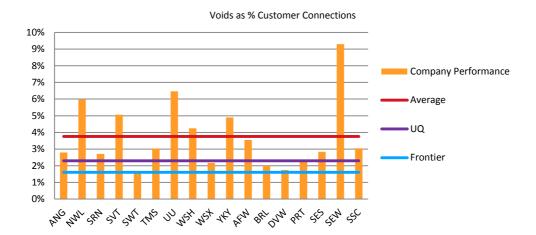


Figure 239:- Water Industry Comparison of Void Data (Source, OFWAT Data Share, 2018)

There are a number of exogenous factors that influence the number of void properties and therefore cause fluctuations and changes to the number of void properties in our area over time. These broadly fall into two categories, namely socio - economic and housing:

- Potential changes in land/development/housing usage can impact void density. For example, a
 residence that once received a single bill may be turned into multiple self-contained apartments
 thus resulting in the property having multiple new occupiers, potentially with separate bills.
- Economic factors deprivation levels are likely to affect whether the customer decides to provide accurate information on the occupancy status of a property.
- Social factors higher levels of transience would make it more difficult to keep track of change of occupancy and manage voids, particularly those areas with high student populations.

Our performance to date (see Table 35) demonstrates that over time (5 years) we have experienced an average void rate of 2%, noting a reduction in actual void properties over the period despite property numbers increasing. In percentage terms, connected properties have increased by 2% whilst void rates declined by 8.5% overall (within the same time period).

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Total Properties	489,168	483,212	486,461	490,171	494,270	509,927
Household Voids	10,576	10,063	9,737	9,033	9,680	10,291
Percentage of voids	2.2%	2.1%	2.0%	1.8%	2.0%	2.0%

Table 35 - Historical Void Performance Source: Bristol Water

Looking forward, there will be a number of challenges to maintain and go beyond our current upper quartile performance. Paul Smith, Bristol City Council cabinet member for housing, suggested that student housing is set to rise as the two universities in Bristol increase their student numbers.³⁶ Given

³⁶ Bristol Post, July 2017

the already comparatively large proportion of student accommodation in our supply area (compared to the overall property numbers); it is likely to exacerbate the issue. Furthermore, in May of this year the Telegraph reported that the number of empty homes in England increased for the first time in a decade.³⁷

Deeper examination of the make-up of our void properties reveals that void rates tend to be higher for un-metered properties compared to those which are metered. We estimate that rates have been at around 1.4% (measured) and 2.5% (unmeasured) on average over the last 5 years. Given our drive to increase meter penetration across our supply area, and our other activities, we will minimise voids in our supply area and we are confident of achieving a 10% improvement to reach a level of 1.8%.

We recognise this challenge and commit to improving our void performance. Table 36 sets out our aspiration for the next AMP and has been calculated following target rates which have been informed by sector benchmarking, sensitivity checks carried out against Local Authority data and our proposed metering targets over AMP7. In line with expectations we are targeting upper quartile performance and are pushing the frontier. Further details of our performance commitment and incentives for void management are set out in **Section C3 – Delivering outcomes for customers**.

	2020/21	2021/22	2022/23	2023/24	2024/25
Total Properties	520,468	525,971	531,536	536,726	541,929
Household Voids	9,735	9,689	9,606	9,575	9,518
Percentage of voids	1.9%	1.8%	1.8%	1.8%	1.8%

Table 36 - Forecast Void Performance

To achieve our aim, we will consider lessons learned from industry best practices as well as considering approaches adopted in the wider utilities sector and from others who are also faced with tackling the management of voids. We will:

- Data share with other utilities subject to compliance with appropriate legislation;
- Use third party data providers to augment our existing data;
- Improve our move in/move out process to ensure that no property is left void (unless legitimately so);
- Increase our meter penetration;
- Continue to find best practice across the industry and beyond.

9.4 Gap site performance

Activity in this area has been limited especially within residential retail activities. We have undertaken an assessment with a third party company to support finding "gap" sites within the retail household portfolio. This activity found a limited number of gaps, the vast majority of those being business sites. Our intent is to periodically undertake this activity to ensure all "gaps" are found. For business sites this activity is undertaken by water retailers.

68

³⁷ "Number of empty homes in England rises for the first time in a decade", Telegraph May 2018

Through observation and reporting, we currently estimate c100 residential 'gap' properties per annum. We recognise that this approach is sub-optimal and therefore we will be introducing a series of measures in the short and long-term. The measures will include regular (at least annually) cross referencing of our billing records to the Postcode Address File (PAF). The results of the referencing can then be integrated in to our system (subject to new billing system implementation) to ensure we have the most update postal address in our supply area and therefore the ability to identify "gaps" in our residential billing.

We will also explore further data augmentation, following data sharing with other organisations (including utilities and credit reference agencies) to ensure we find gap sites.

9.5 Void & "Gap" Sites - Business retail market

In preparation for the business retail market we examined our asset management systems, identifying 33,500 premises and creating a master data set for market entry. This data, attributed for each property, was then subjected to a series of data maturation and cleansing activities to ensure that all the data required was market ready in respect to its uniform completeness and quality. The maturation process was completed by using four key data reviews:

- Existing Rapid billing systems data;
- GB Group (Third party industrial data supplier);
- Council / local authority datasets;
- Google Street view visualisation.

A final matching exercise was conducted with Wessex Water to ensure that data entered into the market for potable water supplies was complimentary and reflective of their needs specific to Waste Supplies. This data cleansing exercise commenced in June 2016 and was completed by 31 March 2017. The process ensured we went into the market with quality data covering existing voids and capturing any potential gap sites. The data also drove our decision to not put a gap site incentive scheme in place from April 2017 and for April 2018. The idea of introducing a scheme is reviewed annually during the non-primary services and tariff review. We have not ruled out introducing an incentive scheme in the future.

As part of our work to look at the increasing number of non-household properties sat vacant by the retailers in the market, we recently engaged a number of third party data providers to discuss six monthly or annual data checks. These checks would also include a post code gap site check. The number of commercial new connections is generally low in our area of supply and we believe we successfully manage and capture these connections via our existing new connection process.

We receive a market transaction at the point in time when a retailer switches the status of a non-household property to vacant. After the receipt of the transaction, the wholesale services team carry out desk top verification checks and raise any concerns in relation to the status. Should there be a concern, the team would then request a site visit. The top 10 vacant non-household properties, based on historical water consumption data or size of rateable value, also receive a desk top study conducted on a monthly basis. We are also in discussions with a smart metering provider to provide consumption alarms which can be fitted to the existing meters. This may be a more cost efficient way of monitoring vacant supplies going forward.

9.5.1 Internal and external data to inform and validate our approach

Third party providers use a number of external data feeds to validate the market data. These tend to be commercially sensitive; consequently, sharing of data is somewhat limited. Internally we utilise council data sets, Companies House information, local knowledge, phone records and internet searches.

Further exploration with third party data organisations to carry out these data checks on our behalf is taking place.

9.5.2 Incentives to retailers in the business market to identify gap sites and occupied voids

We believe our current data is sufficiently robust and therefore there is currently no incentive in place. We will continue to review this position and should the results of any third party (annually) checks reveal significant gaps, we will use this insight to aid future decisions.

9.5.3 Lessons learned from the business retail market

The management of master and transactional data is critical when split across different organisations. This presents challenges when it is first undertaken and we recognise that ensuring the asset database is as "clean" as possible is crucial. Consequently, we will apply many of the principles used in non-household, in particular to future data augmentation.

9.6 Conclusion

We have a range of robust void and gap site management processes in place to ensure that we don't place an unfair burden of the cost of maintenance and repairs of our water network on customers who pay their bills.

Nevertheless, maintaining an upper quartile level of performance in residential retail, indeed going beyond it, will remain challenging as there are a number of socio-economic factors that influence it beyond our control. Through a package of measures, we will improve our void performance from 2% to 1.8% whilst continuing to search for gap sites.

We will keep a watching brief on business retail gaps sites and apply appropriate inventions, whether that is an incentive to retailers, or something else will be reviewed at least annually during the AMP.

10 Securing Long term resilience - Responding to Future Challenges

10.1 Physical resilience

We have a robust Business Continuity plan which is in line with best practice. We ensure our retailing activities can continue to be carried out in the event of:

- Power outage;
- High sickness levels (pandemic);
- Adverse weather:
- Fuel supply shortages;
- Loss of critical IT system(s);
- Loss of key supplier;
- Unusually high customer activity;
- Inability to access site (e.g. flood, building destruction, etc.)

More specifically, for our IT within Residential Retail, we have ISO27001 accreditation, a framework for our policies and procedures and we ensure these include all legal, physical and technical controls involved in our information risk management processes. This process provides assurance of our information security management system (ISMS) i.e. safeguarding customer data.

10.2 Financial Resilience

We have worked towards efficient Retail costs at the same time as being careful to ensure that our figures are achievable and financially resilient. By sourcing our forecasts, in part, using insight provided by Economic Insight's team, we benefit from their detailed analysis on a number of sectors. This consideration of the external environmental factors noted means we have been able to build financial resilience into our data by considering the impact of specific factors impacting the business outlined below:

- Labour Our costs were mapped out based on the function/roles that make up our retail staff
 base upon which a specific index of wage inflation over time was created. This was reviewed
 in the context of forecasts by the Confederation of British Industry (CBI); the British Chambers
 of Commerce (BCC); the Centre for Business Research (CBR); and Oxford Economics which
 provided security that we were in line with general UK wage forecasts.
- IT Wedge methodology used to identify the gap between IT costs and CPI and build this in to our IPP figure. IT inflation has been 1.3% lower than CPI over the previous 13 years.
- Postage Wedge methodology used to identify the gap between Postage costs and CPI and build this in to our IPP figure. Postage inflation has been 4.7% above CPI over the previous 13 years.
- Bad Debt The two key cost drivers of bill size and socioeconomic factors (such as deprivation – and thus, relatedly, the wider macroeconomic environment) have been considered in detail and applied to our data.
- Other CPI used as a proxy given the wide mix of items included in this category.

Through analysis of our cost base we have already incorporated many external factors into our forecast figures. For example, we recognise that postage cost inflation is likely to continue to be higher than CPI due to the position of the Royal Mail Group (which still has a monopoly position with regard to the wholesale element of its network) which was effectively freed from price cap regulation in 2011 by Ofcom; and privatised in 2013. We have therefore some built-in resilience to future price rises in our postage costs.

The macroeconomic environment will be somewhat difficult to predict, in particular the fallout from Brexit. However, we recognise that the introduction and continued roll out of Universal Credit will impact our ability to collect debts as deductions for water bill from benefits ranks lower in the pecking order; we have already noted collections via this route have reduced significantly (c25%). We anticipate that likely impact will be c. £2m pa of revenue collections may be lost due to this. As we are already aware of the likely impact this will have, we have planned additional activities, set out in Table 31 within the debt management section of this paper.

11 Residential Retail Margin

11.1 Introduction

The approach to setting the household retail control at PR19 is yet to be determined in detail. In its draft methodology consultation, published in July, Ofwat confirmed that a net EBIT margin approach would be retained as the means for setting allowed returns, stating that the: "household retail price control will be set by reference to a margin that covers earnings before interest and tax (EBIT)".³⁸ Whilst being cognisant of Ofwat's early view, as stated in page 183 of its final methodology, we commissioned Economic Insight to provide an assessment of the appropriate level of household retail EBIT margin to assume for PR19 in our belief that net retail margin that is set should reflect the investment and relevant risk of the Retail part of the business.

11.1.1 Key economic factors

There are a number of key economic factors that we consider should be taken into account when setting retail margins. These are summarised in in Figure 24 below.

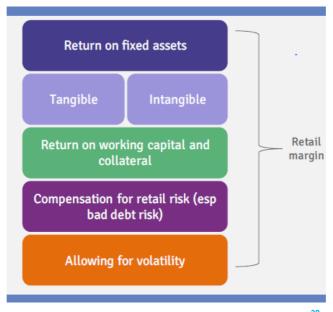


Figure 2410 - Economic Components of Net Margins³⁹

Although the retail businesses for water companies are relatively asset light, the retail margin is nonetheless in part to provide a return on investment in fixed assets.⁴⁰ These primarily relate to tangible assets, such as our retail billing systems.

11.1.2 Approach to retail margin assessment

Economic Insight suggest that the overall approach to retail margin assessment is to consider what margins would be consistent with a standalone retailer being financeable in a competitive market, specifically assessing net EBIT margin (expressed as a percent of end retail revenue).

 $^{^{38}}$ 'Delivering water 2020: Consulting on our methodology for the 2019 price review'. OFWAT (July 2017). Page 192.

³⁹ Economic Insight: Household Retail Margins at PR19, September 2017

⁴⁰ Note, here we are referring to investment occurring from PR14 onwards, as no RCV was allocated to retail at the PR14 price control.

They suggest that benchmarking of operating margins is inherently subjective and therefore requires collating a wide range of information and then applying a clear set of criteria in order to evaluate that information to arrive at a reasonable view citing best practice as:

- comparator based approach (which relies on identifying evidence regarding EBIT margins for an appropriate comparator set of companies);
- review of regulatory precedent relating to the setting of net retail margins;
- ROCE modelling approach.

Comparator Analysis



Figure 25 - Criteria for Assessing Comparators

We have undertaken a 'top down' assessment of comparators against the criteria set out in Figure 25. In total we have reviewed the financial performance of 35 comparators, which were as follows:

- Business stream. The retail arm of Scottish Water.
- Other water retailers. Companies included are: Commercial Water Solutions; Aimera; Bluewater; Cobalt Water; Castle Water and Water Scan.
- Mobile Virtual Network Operators (MVNOs). These are firms such as Virgin Mobile, who
 purchase bandwidth wholesale from Mobile Network Operators (MNOs) such as Vodafone or
 Everything Everywhere; and then sell mobile retail contracts to end customers. Our analysis
 includes: Tesco Mobile; Virgin Mobile; Lebara Mobile; Lyca Mobile; Mundio Mobile Ltd; and
 20:20 Mobile.
- Energy retailers. Firms such as British Gas, who buy energy from wholesalers and offer retail tariffs to end customers. Our analysis includes: (i) 'The Big Six' E.on, British Gas, EDF, Npower (RWE), Scottish Power, and SSE, and (ii) independent energy retailers First Utility, Ovo Energy, Utility Warehouse, and Opus Energy.
- Mobile phone retailers. Firms that retail mobile phone handsets and contracts (typically from physical stores, but also online) on behalf of MNOs and MVNOs. Our analysis includes Phones4U and Carphone Warehouse.
- Retail internet service providers (ISPs). Firms that retail internet (and telephony) services, reliant on purchasing network access wholesale from firms such as BT. Our analysis includes: Talk Talk; Plusnet; Zen Internet; Newcall Telecom; and KCOM Group.
- **Supermarket retailers**. Major grocery retail multiples. Our analysis includes: Tesco; Sainsbury; Morrison's; Marks and Spencer; and Waitrose.

In conclusion, MVNO's (3.8% margin) and energy retailers (3.1% margin) provide the most appropriate benchmark for Bristol Water. They also note that based on a holistic view of comparator evidence 3.1% EBIT is a reasonable conclusion.

Regulatory Precedent

In reviewing 12 regulatory determinations of net retail margins across a range of sectors, and assessed their relevance to the setting of retail margins for PR19 Economic Insight found the following:

Regulator	Sector & Country	EBIT retail margin (%)	Year	Relevant
THE WICS	Water & sewerage retail (Scotland)	3.2	2005	yes
OFGEM	Electricity & gas retail (UK)	2.7	2011	yes
The IPART	Electricity retail (Australia)	4.4	2013	yes
The IPART	Gas retail (Australia)	5.5	2016	yes
NIUR	Electricity retail (NI)	1.7	2011	yes
NIUR	Gas retail (NI)	1.5	2011	yes
The MMC	Hydro-electric retail (Scotland)	0.5	1995	yes
Ofcom	Post (UK)	7.5	2012	no
CER	Electricity retail (Ireland)	1.3	2010	yes
CER	Gas retail (Ireland)	2	2013	yes
СМА	View of competitive markets	0.93	2016	yes
ICRC	Supply of electricity to small customers (Australia)	5.03	2017	yes

Table 37 - Margins for PR19 Economic Insight³⁹

Examination of the determinations finds that across a range of sectors and average EBIT margin of 2.6% (excluding those of low relevance), though we note that CMA energy market analysis implies an EBIT of 0.9%. Given that: (i) the determination is relatively recent; and (ii) our comparative analysis indicates that energy retail is likely to be a relatively good comparator, arguably some weight should be placed on the CMA's implied competitive EBIT margin in energy retail of 0.9%.

ROCE Modelling

Using a forward-looking ROCE model of our retail businesses Economic Insight identified a "low"; "medium"; and "high" case, using a range of assumptions – where the ROCE model 'solves for' the net EBIT margins that would be consistent with the projected retail ROCE being equal to an assumed WACC (pre-tax nominal) which provides a range of appropriate EBIT margins shown in Figure 26.

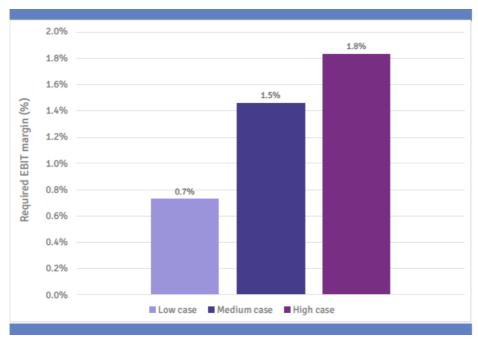


Figure 26 - EBIT Margins Implied by ROCE Modelling³⁹

11.2 Conclusion

It may be considered subjective to determine what the appropriate retail margin should be. Table 38 summarises the outcomes of the three complementary approaches to informing the appropriate level of household retail EBIT margin for PR19. Overall, the analysis is consistent with an appropriate EBIT margin for household retail at PR19 lying in a range between 0.7% and 3.1%.

Approach	Household Retail Margins
Comparator Analysis	3.1%
Analysis of regulatory precedent	0.9% (CMA energy) - 2.6% (average of relevant precedent)
ROCE modelling	0.7% - 1.8% (with a medium case scenario of 1.5%)

Table 38 - Summary of Evidence on Retail % Margins (Economic Insight, Margin Analysis Sept 2017)

From this research, it might be suggested that the 1.0% EBIT margin set at PR14 is somewhat conservative – if set with reference to the margin required by a standalone retailer in a competitive market. Key points underpinning this view are that:

- One would typically place 'more' weight on the actual margins being earned by suitably comparable retailers in competitive markets (i.e. our comparator approach) which tends to point to an EBIT at the upper end of our range.
- Even using a ROCE modelling approach, somewhat conservative assumptions are required in order to imply a margin at or below 1.0% (noting the medium scenario implies a margin of 1.5%).

• The regulatory precedent, once reviewed with care to ensure that only relevant comparators are included, implies an average of 2.6%.

As long as the household retail market remains closed to competition the impacts of low margin levels are somewhat limited. Therefore, in light of the CMA's recent energy market analysis which is consistent with a lower level of margin at 0.9%, and Ofwats early view as stated in page 183 of its final methodology that we should aim for 1%, we consider it appropriate to assume a household retail margin of 1.0% in the next AMP.

12 Residential Retail Revenue

The total residential retail revenues are set out in the table below:

	Unit
Customer Services	£m
Debt Management	£m
Doubtful Debts	£m
Meter Reading	£m
Other operating expenditure	£m
Local authority and Cumulo rates	£m
Third party services	£m
Total operating expenditure	£m
Recharge for Wholesale Assets	£m
Depreciation	£m
Retail Cost to Serve	£m
Allowable Retail Margin	£m
Allowed Revenue	£m
Total Operating Expenses & Recharges	£m
Total gross capital expenditure	£m
Total Expenditure Retail	£m

	Annual Retail													
2020-21	2021-22	2022-23	2023-24	2024-25	2020-25									
	Notional Structure @ Nominal Values													
2.3	2.4	2.5	2.5	2.6	12.3									
0.5	0.6	0.6	0.6	0.6	2.9									
2.7	2.8	2.8	2.9	3.0	14.2									
0.4	0.4	0.4	0.4	0.4	2.0									
2.7	2.7	2.8	2.8	2.8	13.8									
0.0	0.0	0.0	0.0	0.0	0.0									
0.0	0.0	0.0	0.0	0.0	0.0									
8.6	8.8	9.1	9.3	9.5	45.3									
0.5	0.7	0.7	0.7	0.7	3.3									
0.5	0.5	0.5	0.5	0.5	2.5									
9.6	10.0	10.3	10.5	10.6	51.1									
0.9	1.0	1.0	1.0	1.0	5.0									
10.6	11.0	11.3	11.5	11.7	56.1									
9.2	9.5	9.8	10.0	10.2	48.6									
1.2	0.2	0.2	0.2	0.2	2.1									
10.4	9.7	10.0	10.2	10.4	50.6									

Table 39 - Residential retail revenues 2020 - 2025 Source Bristol Water

As well as the operating expenditure set out above, the revenues and total retail cost to serve also include:

- An adjustment for recharging of asset usage between wholesale and retail. This is where assets
 principally used by wholesale, (which therefore have their capex cost and depreciation recorded
 against wholesale) will recharge part of this depreication to reflect the proportion used by retail.
 Typical retail asset usage will include shared central IT systems, office and office equipment.
- This cost which is also shown on the recharge lines in table R1 is removed from WS1 Line 7 Other operating expenditure excluding renewals (in CPIH deflated terms).
- Retail depreciation reflects the historical depreciation and the capital expenditure set out in this
 plan. The depreciation shows a small increase from c£0.4m in 2019/20 to £0.5m average per
 annum 2020-25, which reflects the timing of the systems investment.
- Demand management and customer supply leak repairs of £0.2m p.a. and £0.3m p.a. respectively are funded by the wholesale business, reflecting reducing water efficiency and leakage targets necessary for the Water Resource Management Plan.

The revenues and price controls are shown below in Table 40.

R7 -	Revenue and cost recovery for retail							Brist	ol Water
Line description Price base		Item reference	Units	DPs	2020-21	2021-22	2022-23	2023-24	2024-25
						()		
Α	Residential retail costs ~ England and Wales								
1	Total cost to serve	R7011	£m	3	9.626	10.006	10.301	10.506	10.65
2	Net margin (excl tax and interest)	R7012	£m	3	0.782	0.841	0.902	0.978	1.05
3	Current tax ~ residential retail	R7013	£m	3	0.160	0.172	0.185	0.200	0.21
4	Interest	R7014	£m	3	0.000	-0.044	-0.093	-0.157	-0.22
5	EBIT margin	R7015	£m	3	0.942	0.969	0.994	1.021	1.04
6	Retail residential charge ~ total	R7016	£m	3	10.568	10.975	11.295	11.527	11.69
	·								
В	Business retail costs ~ Wales]							
7	Total cost to serve	R7017	£m	3	0.000	0.000	0.000	0.000	0.00
8	Net margin (excl tax and interest)	R7018	£m	3	0.000	0.000	0.000	0.000	0.00
9	Current tax ~ business retail	R7019	£m	3	0.000	0.000	0.000	0.000	0.00
10	Interest	R7020	£m	3	0.000	0.000	0.000	0.000	0.00
11	EBIT margin	R7021	£m	3	0.000	0.000	0.000	0.000	0.00
12	Retail business charge ~ total	R7022	£m	3	0.000	0.000	0.000	0.000	0.00
С	Retail revenues	1							
13	Revenue ~ Water ~ residential retail measured	R7001	£m	3	7.307	7.777	8.194	8.559	8.88
14	Revenue ~ Water ~ residential retail unmeasured	R7002	£m	3	3.261	3.198	3.100	2.968	2.80
15	Revenue ~ Wastewater ~ residential retail measured	R7003	£m	3					
16	Revenue ~ Wastewater ~ residential retail unmeasured	R7004	£m	3					
17	Revenue ~ Combined ~ residential retail measured	R7005	£m	3					
18	Revenue ~ Combined ~ residential retail unmeasured	R7006	£m	3					
19	Revenue ~ residential retail	R7007	£m	3	10.568	10.975	11.294	11.527	11.69
20	Revenue ~ business retail measured	R7008	£m	3	0.000	0.000	0.000	0.000	0.00
21	Revenue ~ business retail unmeasured	R7009	£m	3	0.000	0.000	0.000	0.000	0.00
22	Revenue ~ business retail	R7010	£m	3	0.000	0.000	0.000	0.000	0.00

Table 40 – Revenue and cost recovery for retail 2020 – 2025 Source: Bristol Water

The net margin of 1% has been applied to the total retail cost to serve, with the wholesale revenues, in order to calculate the net margin. Interest received is generated due to the cash flow from customers paying in advance. The calculations have been undertaken within the Ofwat financial model. Tax has been calculated using a 17% corporation tax rate.

13 Conclusion

In developing our residential retail plan we address the appropriate IAP tests set out in Ofwat's final methodology.⁴¹ In particular this section of our plan responds to:

- Engaging Customers EC1;
- Addressing affordability and vulnerability AV1, AV2, AV3 & AV4;
- Delivering outcomes for customers OC1;
- Securing cost and efficiency CE3.

The completion of our most extensive consultation with our customers, over 37,000, ensures that we deliver a residential retail plan that customers find affordable and value for money, recognising that residential retail plays a less significant part in the make-up of a customer's bill. In doing so we support the creation of an affordable bill; reducing the average bill by c4.5% and keeping them lower than they were in 2014/15 until at least 2030. This reflects the absorption of ten years' inflation (RPI/CPIH) and in delivering this lower bill we will not compromise on service.

Indeed, we will continue to be the most trusted water company, offering our customers a wide choice in how they communicate with us whilst ensuring that all our employees are equipped with the knowledge and technology to provide a great customer experience through all our customer channels. This will support our aspiration to become the top performing utility, for service, by 2025.

As a community focussed business we ensure our service is inclusive. Building on our existing package of care, we will support significantly more of our customers who find themselves in vulnerable circumstances than we do today. Using a holistic approach to vulnerability, including sharing of data across multiple agencies, we will make sure all those eligible for our social tariffs (c12,000 more) get help and we will continue to eliminate water poverty in our supply area whilst trebling the number of registrations to our PSR, ensuring those who need our help have access it when they need it most. We will go further in our commitment to inclusivity through the introduction of a bespoke performance commitment, 'level of satisfaction', for those customers in vulnerable circumstances.

We recognise there is more work to do in improving our revenue collection and reduction in the current bad debt levels. We are committed to improving our revenue collection by around 16%, thus supporting delivery of our modelled efficiency challenge for the period. Consequently, we will deliver, as a proportion of revenue, a reduction in bad debt to 2.9% (from 3.4%) supporting delivery of an efficient retail business.

Building on our existing efficient retail arrangement, our collaboration with Wessex Water, Pelican Business Services, we will deliver an upper quartile efficiency position within the water sector throughout the next reporting period. Using insight from independent economic experts we found that an application of a one off efficiency of 5.4% ensures we achieve this ambition from the commencement of the AMP. Throughout 2020 - 2025 we will maintain this position, allowing for an IPP of 1.95%, by applying a net adjustment of 0.42% efficiency (frontier shift) which results in our operating

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⁴¹ Delivering Water 2020: Our final methodology for the 2019 price review

cost to serve improving from £18.65 in 2017/18 to £17.91 by 2024/25. In total our OPEX expenditure for household retail comes to be £45.26m (nominal) after adjustments & net efficiency gains (£3.7m) have been applied to our cost base.

In ensuring that we don't place an unfair burden of the cost of maintenance and repairs of our water network on customers who pay their bills, we will maintain our robust void and gap site management processes improving our void performance from 2% to 1.8%, which builds on our current upper quartile performance whilst continuing to search for gap sites.

Finally, taking account of our research which includes CMA's recent energy market analysis and Ofwat's early view in its final methodology, we consider it appropriate to assume a household retail margin of 1.0% in the next AMP.

In summary our retail plan is efficient and stretching, demonstrating innovation in people, processes and technology that delivers excellent water experiences for our customers.