Appendix A26
Performance commitments

Contents

Summary table

PC name	ID	20/21	21/22	22/23	23/24	24/25	Units
Customer measure of experience	A1	UQ	UQ	UQ	UQ	UQ	Ofwat set
Developer services measure of experience	A2	UQ	UQ	UQ	UQ	UQ	Ofwat set
Retailer measure of experience	A3	93%	93%	93%	93%	93%	Percentage
Financial support	B1	32000	34000	36000	38000	40000	nr of customers
Extra Care assistance	B2	5%	5%	5%	5%	5%	% of customers out of PSR registered
Education activity	B3	3000	3000	3000	3000	3000	People educated
Leakage South Staffs region (3 yr av)	C1	69.3	67.0	63.5	60.0	56.5	Ml/d
Leakage Cambridge region (3 yr av)	C2	13.4	13.1	12.7	12.3	11.9	Ml/d
Residential water consumption South Staffs region (3 yr av)	C3	129.13	128.93	128.73	125.53	128.33	l/p/d
Residential water consumption Cambridge region (3 yr av)	C4	142.58	141.37	140.16	138.95	137.74	l/p/d
Environmentally sensitive water abstraction	C5	0	0	0	0	0	Points score
Supporting water efficient house building	C6					30.6	Mega litres saved
Protecting wildlife, plants, habitats and catchments	C7	194	320	451	592	690	Hectares
Carbon emissions	C8	68	68	66	64	61	kg per customer
Compliance risk index	D1	0	0	0	0	0	Points score
Supply interruptions	D2	05:30	05:20	05:10	05:00	04:50	mm:ss
Risk of severe restrictions in a drought	D3	0	0	0	0	0	% of customers at risk
Mains bursts	D4	120	120	120	120	120	nr per 1000 km
Unplanned outage	D5	1.70%	1.70%	1.70%	1.70%	1.70%	%
Customer contact about water quality	D6	1.20	1.17	1.14	1.00	0.80	contacts per thousand popn
Visible leak repair time	D7	90% within 6 days	90% within 5 days	90% within 4 days	90% within 4 days	90% within 4 days	% within N days
Water treatment works delivery programme	D8	See detailed description					Delivery milestones
Bad debt level	E1	3.21%	3.06%	2.99%	2.96%	2.95%	%

Residential void properties and gap sites	E2	100%	100%	100%	100%	100%	%
Employee engagement	E3	+10 NPS & IIP	+10 NPS	+10 NPS	+10 NPS	+10 NPS	Survey score
Treating our suppliers fairly	E4	100%	100%	100%	100%	100%	SMEs paid within 30 days
Trust	F1	8.1	8.15	8.2	8.25	8.3	Survey score
Value for money	F2	77%	79%	81%	83%	85%	Survey score

Direction of P10/P90 in this commentary

Some measures numerically increase with improving performance, and some measures numerically decrease with improving performance. This means that in strict numerical terms, the P10 could be either the 10th percentile outperformance or the 10th percentile underperformance, depending on the direction of the measure.

To avoid confusion in the commentary and presentation of charts and data, where we use the P10 term, we mean the underperformance side, regardless of direction. Where we use the term P90, we mean the outperformance side.

1. Customer measure of experience (A1)

Performance commitment name:	Customer measure of experience (A1)		
Short definition	Level of satisfaction of residential customers.		
Units	This measure will be defined by Ofwat.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	Ofwat will define a common methodology for all companies.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
86.30	84.44	87.03	88.10	88.10	UQ	UQ	UQ	UQ	UQ

In current SIM (shown above up to 2019/20), we expect to achieve an outperformance payment in the order of £2.44 million for AMP7. We aspire to be at least upper quartile in the industry in the new CMEX measure.

2. Comparative performance

The current SIM measure applies financial incentives based on relative score to the rest of industry and the new measure is proposed to work the same way.

3. Upper quartile projection

Not applicable as this is a new measure defined by Ofwat.

4. Marginal cost of improvement

Ofwat will specify the financial incentive.

5. Handling uncertainty

Not applicable as the parameters of this measure will be defined by Ofwat.

6. Customer evidence

Customers have consistently demonstrated that excellent customer service is a key priority in our qualitative and quantitative research. There expectations continue to increase over time and they are looking for innovation in service delivery, both operationally and through retail channels.

There was strong support for this measure in our qualitative Performance Commitment workshops, attracting a very high number of votes for us to offer industry leading performance, particularly in our South Staffs region. Customers found the measure to be easy to understand and wanted to know how the surveys worked.

76% of customers (household and business) accepted our proposed 2024/25 target to be in the upper quartile in our acceptability testing research. Also, 85% said they understood our description of the measure.
7. Incentive type
This measure will be financially incentivised, with Ofwat specifying the design of the measure.
8. P10/P90 range
Not applicable as the parameters of this measure will be defined by Ofwat.
9. Financial incentives
Ofwat will specify the financial incentive.
10. Enhanced incentives
Ofwat has specified that enhanced incentives will be applied to this measure in its methodology.

2. Developer services measure of experience (A2)

Performance commitment name:	Developer services measure of experience (A2)		
Short definition	Level of satisfaction of developer services customers.		
Units	This measure will be defined by Ofwat.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	Ofwat will define a common methodology for all companies.		

1. Company trend

This is a new measure, no previous trend is available.

2. Comparative performance

This is a new measure however some data is available via Water UK developer services reporting.

3. Upper quartile projection

This is a new measure however some data is available via Water UK developer services reporting.

4. Marginal cost of improvement

Ofwat will specify the financial incentive.

5. Handling uncertainty

Not applicable as the parameters of this measure will be defined by Ofwat.

6. Customer evidence

Ofwat is engaging with developer services customers as part of its design group.

In our recent developer services forum customers have expressed that they are expecting continuous improvements to the services we offer, particularly through digital channels. They consider that DMEX is a good initiative if done in a consistent way at an industry wide level to benchmark water companies' performance, as long as the issues surrounding how the survey mechanism will work in practice can be overcome.

There was support for this measure in our qualitative Performance Commitment workshops. However, this was among business and household customers, so is not directly relevant.

86% of customers (household and business) accepted our proposed 2024/25 target in our acceptability testing research of being in the top 4 companies. Also, 87% said they understood the description of the measure.

7. Incentive type
This measure will be financially incentivised, with Ofwat specifying the design of the measure.
8. P10/P90 range
Not applicable as the parameters of this measure will be defined by Ofwat.
9. Financial incentives
Ofwat will specify the financial incentive.
10. Enhanced incentives
Ofwat has specified that enhanced incentives will be applied to this measure in its methodology.

3. Retailer measure of experience (A3)

Performance commitment name:	**Retailer measure of experience (A3)**		
Short definition	A measure of our performance as a wholesaler operating in the business market, incorporating the existing market and operational performance standards and a satisfaction measure.		
Units	Percentage.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	Ofwat is mandating performance commitments covering the satisfaction level of residential customers (customer measure of experience) and developers (developer services measure of experience), however we have an important third set of customers – our business retailers. South Staffs Water, incorporating Cambridge Water, has exited the business retail market. Therefore the business customers in our regions are all supplied by intermediate retailers, who buy the water from us on a wholesale basis. We operate a range of wholesale service processes in order to service these retailers, and so we are proposing to measure the satisfaction of this customer group with our overall service provision. Within the business market operation there are existing metrics, but currently no qualitative satisfaction measure. We therefore propose to use the existing MPS and OPS metrics and combine them with our own retailer satisfaction survey. The satisfaction element will be collected as far as is possible by our day to day insight and utilisation of spot surveys (for example if we receive a complaint), this is to reduce the administrative burden on retailers who expressed a preference against too many surveys. We will equally weight the existing MPS and OPS scores with our satisfaction survey score for our reported performance. A combined metric is appropriate here because of the different performance measurement scores available and because it is targeted at retailers who are capable of understanding a combined metric and what it means for them. This measure has been co-created with retailers in our direct engagement with them.		

1. Company trend

2020/21	2021/22	2022/23	2023/24	2024/25
93%	93%	93%	93%	93%

This is a new measure. We do have data from the existing MPS and OPS SLA reporting, but no satisfaction score. Our target is assuming a 100% level of compliance in both MPS and OPS, and an 80% score from our satisfaction surveys.

2. Comparative performance

There is industry comparative data on the current MPS and OPS scores, but no satisfaction score information as we do not believe any company has yet adopted this.

3. Upper quartile projection

As we are targeting full compliance on both MPS and OPS, our target is then dependant on the score we obtain from satisfaction surveys. We believe an 80% score from a satisfaction survey is stretching, however we have no data on where we might expect these scores to be when engaging with the business market retailers.

4. Marginal cost of improvement

Not applicable as we are proposing this measure is a non-financial incentive.

5. Handling uncertainty

Not applicable as we are proposing this measure is a non-financial incentive.

6. Customer evidence

There was some support for this measure in our qualitative Performance Commitment workshops, but it did not attract many votes for us to be industry leading. Business customers found the measure to be more important.

We have engaged extensively with business market retailers to develop this measure and gain support. We conducted depth interviews with key operational customer contacts at 11 customers, which revealed that they would prefer a combined measure of market performance data and customer satisfaction surveys. We have then consulted again with our whole business market retailer customer base to ask for their feedback on our proposed approach and targets. So far the response has been positive. Our business market retailers have said they want this measure to be reputational at this time.

58% of customers (household and business) accepted our proposed 2024/25 target in our acceptability testing research (note this was tested at 95% satisfaction). Also, 91% said they understood our description of the measure.

7. Incentive type

This measure will be a non-financial incentive because:

- It has a specific focus on the business retail market and is therefore not reflecting a service level that residential customers would receive.
- It is likely that GSS-type incentives will come into operation for the existing MPS and OPS measures, which form part of our measure.

- Retailers have expressed support for this measure being non-financial, on the basis that they do not want to add financial uncertainty to their business.
- It is a new measure, and we and retailers want the ability to improve it over time.

8. P10/P90 range

Not applicable as we are proposing this measure is a non-financial incentive.

9. Financial incentives

Not applicable as we are proposing this measure is a non-financial incentive.

10. Enhanced incentives

Not applicable as we are proposing this measure is a non-financial incentive.

4. Financial support (B1)

Performance commitment name:	Financial support (B1)		
Short definition	Number of household customers that we help with their water bills, using our financial assistance schemes such as our social tariff, charitable trust, payment plans or other types of help.		
Units	Percentage		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under ✓	Non-financial
Methodology used	Industry common	Bespoke ✓	
Long definition	We currently offer a number of different financial support schemes to our household customers depending upon their individual circumstances, which includes our social tariff offering, named Assure. The vast majority of customers who receive financial help will be registered only to one of the above schemes, however a small number of customers receive help from more than one type of scheme. Where this is the case we will only count that customer once in our reported metric. We will measure the number of household customers helped on a financial year basis, as a proportion of the total number of household customers. If a customer is in receipt of some form of financial help for only part of a financial year then we would still count that customer within the metric. In practice this is rare, typically our customers receive help on our schemes for the full financial year.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
19,621	23,895	29,036	30,000	31,000	32,000	34,000	36,000	38,000	40,000

The future targets primarily represent the increase in our social tariff offering and we will also continue to explore the other types of financial help we offer where they are appropriate to the individual customer's interests and fit with their financial situation.

We are slightly adjusting our definition from this period, to ensure that customers who are receiving multiple types of financial help are only counted once. This change will occur at the start of 2020/21 and is included within the numbers presented above.

2. Comparative performance

CCWater produced a report for the 2016/17 year comparing financial assistance schemes for the industry. There is a mix of performance across companies however our performance is already ahead of many companies and ahead of some of the larger WASCs. Since 2016/17, which was the first year of our social tariff operation, our take up has grown considerably and we look forward to

seeing how we now compare when the next set of information is released later this year.

3. Upper quartile projection

There is a wide mix of performance across companies, and as there is no standard package that all companies offer, and as companies started their social tariffs at different points, it is not appropriate to forecast an upper quartile level at this stage. We will continue to target customers and market our tariffs to encourage take up.

4. Marginal cost of improvement

The increase in the number of customers supported is primarily driven by an increased Assure tariff, which is funded by customers directly and operated as a ring fenced fund.

5. Handling uncertainty

We do not feel it is necessary to include a deadband or any use of averaging on this measure.

6. Customer evidence

Customers have consistently demonstrated overall that supporting vulnerable customers is a priority in both qualitative and quantitative research. However, our insights clearly show that there are a noticeable number of customers who do not want to pay more for us to provide financial support to customers struggling to pay their bills.

In our social tariff contribution engagement we received support from over 60% of customers to increase the contribution level from £1.50 to £3.00.

Strong support that this is a measure in our qualitative Performance Commitment workshops, particularly among customers in lower socio economic groups. Received few votes to be at industry leading level of performance, but more support for being a “top 5” ranked company in the industry. Customers also wanted clarity on how we identify customers who are struggling.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 48% of customers were prepared to pay for more customers to be supported performance above our current service position (note that customers were started from a stretch service position).

65% of customers (household and business) accepted our proposed 2024/25 target, to support 40,000 customers, in our acceptability testing research. Also, 89% said they understood the description of the measure.

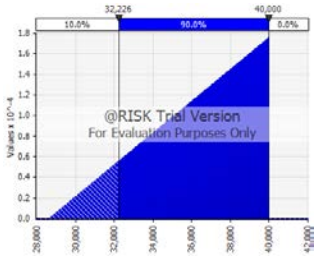
7. Incentive type

We are proposing this as an underperformance penalty only as we already collect the social tariff funding from customers for a defined level of assistance reflected in our target. We do not have support to go beyond this level, although may in the future as our programme expands.

8. P10/P90 range

There is a degree of uncertainty within the delivery of the measure due to the reliance on customer take up. At the moment we have no reason to expect that our target would be underachieved, given the strong take up we have seen in this current period. However the social tariff forms around half of the total assistance package and there could be movements in the other elements, such as DWP deductions which could be affected by universal credit. We have therefore allowed for a level of uncertainty at the P10 level on this measure. This is the distribution we have assigned

by year 5. There is also a likelihood that we could experience more take up than our target level, however as penalty only measure that does not affect the P10 estimate.



9. Financial incentives

This measure is unique in its valuation method.

The social tariff fund we collect from customers derives from a £3 contribution per billed customer. This gives us a fund, which we ring-fence and then return to the customers who are signed up to our social tariff via a bill reduction. If we fail to deliver on our target, then it means we have gathered funds from customers that have not then been redistributed. As our fund is entirely ring-fenced, we do not benefit from underdelivery, we would look to increase our sign ups the following year to ensure the fund is redistributed. However we recognise that we should implement a penalty to ensure the business is appropriately incentivised to deliver the target.

Therefore we have looked at the time value of the money we collect, and if we miss our target, for each customer that we miss, we will incur a penalty equivalent to the time value of the amount we would have redistributed. This calculates to £5.79 per customer prior to package scaling. Please note for the avoidance of doubt, this penalty amount is independent of the fund collected from customers, which is entirely ring-fenced.

Finally we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£8.69 per customer.

10. Enhanced incentives

This metric is not suitable for enhanced incentives, as it is a penalty only measure reflecting our social tariff delivery, for which we collect a defined contribution from each customer.

5. Extra Care assistance (B2)

Performance commitment name:	**Extra Care assistance (B2)**		
Short definition	Proportion of household customers that we help with our 'Extra Care' support, such as our additional meter reads, referral fast-track, a dedicated team to call, voice assistant, tailored communications and links to partnership and advice providers. In addition they will have access to on-line and mobile technology which will feature specifically tailored support.		
Units	Percentage		
Use of averaging	No averaging ✓		Three year rolling
Form of incentive	Out&Under	Under ✓	Non-financial
Methodology used	Industry common		Bespoke ✓
Long definition	Customers who identify themselves as requiring the benefits of the Extra Care package will have a number of additional benefits available to them The overall package is expected to contain (but is not limited to): • Additional meter reads • Dedicated team to call • Fast Track referral applications • Voice assistant capability • Links to partnerships and advice providers • Logging on our PSR database • Tailored communications as and when they suit the customer e.g. braille, large print • App and online portal • Sharing of your information about your needs which makes life easier • Carer support option Together these components will create an enhanced level of service which is above and beyond the core offering. It is designed to support those who are most in need of additional support and is aimed to minimise any disruption for these customers when dealing with us. It will be built to allow the customer choice to create a package that is personal to them. The aim is to deliver a tailored package which optimises the support requirement of each individual and this aligns with our customer research. We will measure the proportion of household customers, out of our total household customers, who register to our priority services register and who may receive some or all of the components of the Extra Care package.		

1. Company trend

2020/21	2021/22	2022/23	2023/24	2024/25
5%	5%	5%	5%	5%

This is a new measure for AMP7 and we have no equivalent AMP6 measure. We expect 5% of the customers on the priority services register to be eligible for the Extra Care package each year. The number of customers on the PSR is forecast to rise over time, and hence the number of customers on the Extra Care package is also expected to rise.

2. Comparative performance

We do not have any comparative information on industry PSR performance, and our Extra Care offering is bespoke to us.

3. Upper quartile projection

We do not have any comparative information on industry PSR performance, and our Extra Care offering is bespoke to us.

4. Marginal cost of improvement

We have included the cost of delivering Extra Care in our retail costs for AMP7. It is the equivalent of £0.79 per billed customer, which calculates to £54 per customer we expect to sign up to the package, based on 5% of our PSR growth forecast.

As there are no cost true ups in retail, there is no share factor (no equivalent to the 0.5 share factor that exists in wholesale), therefore we have assumed that this full incremental cost valuation represents the underperformance penalty for this measure.

5. Handling uncertainty

We do not feel it is necessary to include a deadband or any use of averaging on this measure.

6. Customer evidence

Customers have consistently demonstrated overall that supporting vulnerable customers is a priority in both qualitative and quantitative research.

In our willingness to pay Wave 2 research this measure attracted higher valuations than other retail attributes (such as schools education and community projects) and also some water quality and reliability of supply attributes.

Strong support that this is a measure in our qualitative Performance Commitment workshops, particularly among customers in lower socio economic groups. Received few votes to be at upper quartile level of performance. Customers felt this measure was clear and easy to understand.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 46% of customers were prepared to pay for more customers to be supported performance above our current service position (note that customers were started from a stretch service position). This is not the same level of appetite for improved performance as seen for measures like leakage.

In our hard to reach engagement we co-created an extra care package at workshops, building on the findings from in-home depth interviews. Customers rated their preferences for a range of support options, with a dedicated line to call and the development of digital services to help them

manage the support they receive most popular.

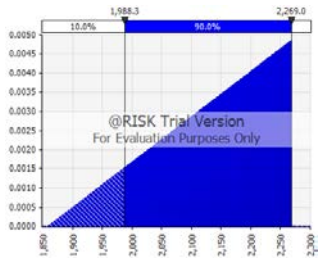
76% of customers (household and business) accepted our proposed 2024/25 target, supporting 2,000 customers a year, in our acceptability testing research. Also, 94% said they understood the description of the measure. Our final target relates to 5% of the customers on the priority services register to be eligible for the support, which equates to around 2,000 customers a year based on our projections.

7. Incentive type

We are proposing this as an underperformance penalty only.

8. P10/P90 range

There is a degree of uncertainty within the delivery of the measure due to the reliance on customer take up. At the moment we have no reason to expect that our target would be underachieved, and we are expecting the PSR to grow significantly based on our planned improvements and marketing. However we have allowed for a level of uncertainty of around 10% at the P10 level on this measure. This is the distribution we have assigned by year 5. There is also a likelihood that we could experience more take up than our target level, however as a penalty only measure that does not affect the P10 estimate.



9. Financial incentives

The valuation for this measure is obtained from the incremental cost in its entirety, as there is no cost true up in retail, and we do not have a robust value for the incremental benefit.

The cost of £54 per customer, after package scaling, results in an underperformance penalty rate of £81 per customer.

10. Enhanced incentives

As a bespoke measure to us, and one which is new for AMP7, this performance commitment is not appropriate for enhanced incentives.

6. Education activity (B3)

Performance commitment name:	**Education activity (B3)**		
Short definition	Number of people who have received our education services.		
Units	Number of people.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	Our education programme currently offers: • Captain Efficient v The Water Wasters assembly - key stage 1 and lower key stage 2 • Water Efficiency assembly - upper key stage 2 • Captain Efficient v The Water Wasters workshop - key stage 1 and lower key stage 2 • Water Detectives - Water efficiency workshop - upper key stage 2 • Little Drop of Water - Water cycle workshop - key stage 1 • Water cycle and treatment workshop - key stage 2 • Water efficiency literacy workshop - year 4 lower ability The programme of assemblies and workshops has been developed to offer engaging, cross-curricular activities that suit different ages and abilities. Each assembly and workshop has a range of introductory and follow up activities so that teachers can choose the work that best suits their class. The activities have been designed to be transferable so that they can be delivered both in the South Staffs and Cambridge areas of supply, ensuring a consistent approach to the education provision in both areas. Facilitation handbooks have been produced as a 'how to' delivery guide for the assemblies and workshops so that in the future, staff and volunteers can be trained on the delivery of activities. We will continue to look for opportunities for expansion of our programme. We will report the number of people that have received the education services we offer. We have indicated this performance commitment is a non-financial incentive as we are currently making significant changes to our education offering, primarily moving away from visitor centre led activity to outreach activity. As our programme evolves we will gain more understanding of demand for these services.		

1. Company trend

2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
1800	3000	3000	3000	3000	3000

We are currently building our education programme and expect to provide services to approximately 1,800 people by 2019/20, rising to 3,000 for each year of AMP7.

2. Comparative performance

We do not have any industry data on this area.

3. Upper quartile projection

We do not have any industry data on this area.

4. Marginal cost of improvement

Not applicable as we are proposing this measure is a non-financial incentive.

5. Handling uncertainty

Not applicable as we are proposing this measure is a non-financial incentive.

6. Customer evidence

Customers have demonstrated that the need to educate customers on how to use water responsibly to reduce demand is an important priority in both our qualitative and quantitative research. They have spontaneously said that they expect this activity to focus mainly on young people, but that all generations need to be reached for it to be truly effective.

In our Wave 2 willingness to pay research customers gave a relatively low valuation to 'educating future customers' compared to other attributes.

There was strong support for this measure in our qualitative Performance Commitment workshops, and it attracted a high number of votes for us to be industry leading, particularly in our South Staffs region. Customers found the measure to be easy to understand and wanted to know how this would link with water efficiency.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 53% of customers wanted us to increase our level of schools education activity (note that customers were started from a stretch service position).

67% of customers (household and business) accepted our proposed 2024/25 target, 3,000 young people a year, in our acceptability testing research. Also, 96% said they understood the description of the measure.

7. Incentive type

This measure will be a non-financial incentive because we are currently making significant changes to our education offering, moving away from visitor centre led activity to outreach activity. We need the flexibility to allow our offering to respond to the demand for these services.

8. P10/P90 range

Not applicable as we are proposing this measure is a non-financial incentive.

9. Financial incentives
Not applicable as we are proposing this measure is a non-financial incentive.
10. Enhanced incentives
Not applicable as we are proposing this measure is a non-financial incentive.

7. Leakage South Staffs region (C1)

Performance commitment name:	Leakage South Staffs region (C1)		
Short definition	Leakage level in the South Staffs supply region		
Units	Mega litres per day (Ml/d) to 1 decimal place		
Use of averaging	No averaging	Three year rolling ✓	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	This performance commitment is for the leakage level in the South Staffs supply region. We will fully adopt the industry consistent methodology for leakage reporting as published on Ofwat's website. We are currently implementing some aspects of this methodology and we plan to be fully compliant by 2020. Each year we provide a 'red amber green' assessment to Ofwat on our level of compliance.		

1. Company trend

This table shows our current performance and future performance commitment in annual leakage terms:

2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
69.2	69.9	69.9	72.4	70.5	70.5	67.0	63.5	60.0	56.5	52.9

The historically reported leakage values (in green) and the AMP7 performance commitment (in blue) are expressed in terms of our AMP6 leakage methodology. This is consistent with the way we have reported leakage in our draft water resources management plan.

Our AMP7 performance commitment is a 25% reduction from our current performance commitment. Our draft water resources plan contained a 15% reduction and we will amend this to 25% for our final water resources management plan.

The new consistent methodology reporting (shadow reporting) has created uncertainties in comparing our future performance commitments to our historical reported numbers, so we have expressed our leakage targets in AMP6 methodology terms at the moment. We will commit to the 25% reduction from rebased leakage values as our compliance with the new consistent methodology improves. We will rebase historical values as we enter into the new price control period, following Ofwat's guidance, so that the three year rolling average is consistent.

We are planning to deliver the 25% reduction linearly over AMP7.

This table shows our current performance and future performance commitment as a three year rolling average:

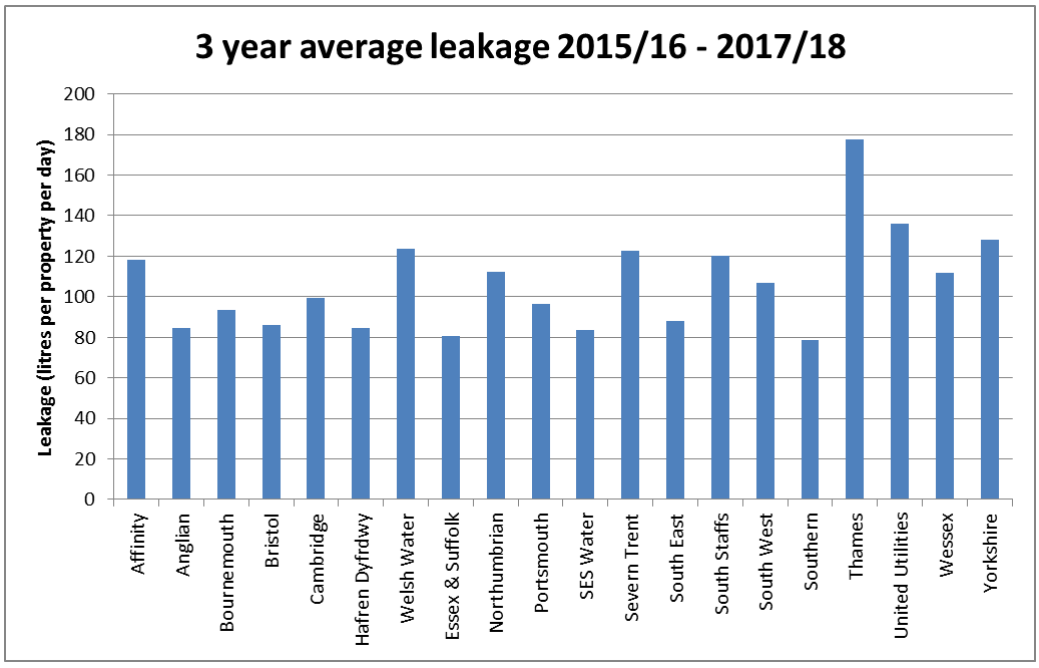
2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
-	-	69.7	70.7	70.9	71.1	69.3	67.0	63.5	60.0	56.5

It is the above three year rolling average that forms our performance commitment in the business plan.

2. Comparative performance

There are two normalised industry measures published on Discover Water: litres per property per day and m^3 per km of main per day. We have compared our performance against this industry data.

The two different normalisers create different results as the way in which they account for density is different. In the litres per property per day measure, regions which are more property dense are better accounted for as we estimate that a third of total leakage is on customers' pipes rather than our network assets. The m3 per km of main per day measure does not account for this, but does account better for regions where there is a longer than average network. We believe that the customer side leakage component is significant enough to make the litres per property per day measure a much more robust comparator for leakage across the industry, and for this reason we have primarily focussed on this metric when benchmarking our performance.



On the chart above, South Staffs region is one of the higher leakage areas, ranking 15th out of the 20 regional data points. This is why we have committed to a much larger 25% reduction than is necessary to deliver a sustainable supply demand balance in our water resources management plan.

Water companies have also been reporting a 'shadow' leakage value using a revised methodology that all companies must use from 2020 onwards. However at the moment there is considerable uncertainty in the values reported due to the self disclosed level of compliance with this new methodology. For this reason we have not placed much weight on this as a comparator at the moment, however we will utilise it as the robustness of the data improves.

3. Upper quartile projection

There are still uncertainties surrounding the shadow data, so we think the best approach is to take a judgement view of where upper quartile might be, using the live and shadow data, and also a judgement of what reductions companies may undertake over the period.

Using the litres per property per day normalisation, the current upper quartile equivalent for SST would be between 50 and 57 Ml/d. Based on a 5% reduction for current upper quartile companies and a 15% reduction for all others, we would expect the upper quartile equivalent to be just over 50 Ml/d, using the 2016/17 shadow values as the base. Therefore our target of a 25% reduction to 52.9 Ml/d by 2024/25 is in the right ballpark on these assumptions.

For leakage, the industry upper quartile itself is a useful comparative benchmark, but of itself does not dictate strategy. All companies have a different mix of geographical and environmental factors which need to be considered when committing to a leakage reduction target.

4. Marginal cost of improvement

To achieve our performance commitment we have an increase in ALC cost. This is taken from the SELL cost curve as the difference between two points, current performance and future target performance. This is £24,241 per Ml/d.

We also have two transition capex schemes.

1. Transition capex to achieve 12 Ml/d reduction - £2.5m
2. Live network improvements to achieve a further 5 Ml/d reduction - £3.5m

Annualised, this capex is equivalent to £49,242 per Ml/d.

Combined, the total incremental cost is £73,483 per Ml/d.

5. Handling uncertainty

Ofwat has proposed that leakage is measured over a 3 year rolling average to account for weather effects. This was preferable to having an annual value with a deadband. We have therefore adopted this approach.

6. Customer evidence

Customers have consistently demonstrated that leakage is a high priority in both qualitative and quantitative research, wanting us to go further than our current level of performance. Key insights from our customer engagement include:

- Leakage reduction consistently rated as a top 5 priority area in our foundation priorities and WRMP research and also in our WTP Maxdiff exercise study – seen as a core “hygiene factor” with current performance level not deemed acceptable. Leakage was often cited as the top priority to address among larger business customers;
- The majority of customers think that reducing leakage is morally the right thing to do, although we found in our qualitative workshops that the more informed they get about the costs and operational challenges associated with reducing leakage by significant levels the more balanced their judgement became;
- Received the highest willingness to pay (WTP) valuation of the ‘environmental’ attribute in our Wave 1 study, where significant levels of service improvements were shown to business and household customers. WTP valuation levels dropped in Wave 2 study when a lower level of service improvement was shown;

- We have also have triangulated our WTP data for leakage and own data with that of the industry and other studies and information we have. The final triangulated WTP value is £91,222 per Ml/d;
- Strong support that leakage is a measure in our qualitative Performance Commitment workshops. Received few votes to be at industry leading level of performance, but improved service improvements were requested. Customers also wanted clarity on pipe ownership and the method of calculation for leakage targets;
- When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 89% of customers were prepared to pay for an improved level of leakage performance above our current service position (note that customers were started from a stretch service position). This evidences high demand for improved performance; and
- 61% of household and 57% of business accepted our proposed 2024/25 target, to reduce leakage to 52.9 Ml/d in our acceptability testing research. 88% of household and 100% of business customers said they understood the description of the measure.

7. Incentive type

Leakage will be a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

We have taken into account the starting level of performance, the three year average effect and the management control we have over leakage performance in determining our P10/P90 range. As with all measures, we have utilised a Monte Carlo model to provide a robust estimate of the likely risk level given the input distribution selected.

As our leakage target reduces over the period, we also have a changing P10/P90 profile by year, as follows:

As we move through the years, the reducing target becomes harder to achieve, hence this is reflected by a distribution that shifts from more symmetrical in the early part of the period to skewed by the end of the period.

9. Financial incentives

We have willingness to pay data for leakage and have triangulated our own data with that of the industry and other studies. The final triangulated willingness to pay value is £91,222 per Ml/d.

We used our triangulated willingness to pay value and our incremental cost value within Ofwat's formula to determine the incentive rates. However we found that there was imbalance in our incentives package when considered at the company level and against the P10/P90 range. We have therefore made further adjustments to the leaking incentives to improve this balance.

Firstly, we compared our data to the industry study compiled by Paul Metcalf. For leakage, after normalising, our values were approximately three times lower than the industry average. To improve balance, we have therefore increased both underperformance and outperformance rates

by a factor of three.

Secondly, we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£256k per Ml/d.

The final outperformance payment rate, after scaling is £778k per Ml/d.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

Enhanced incentives are suitable when a company is proposing to shift the frontier performance level and communicate this innovation to other companies so that all customers can benefit.

We are not proposing enhanced incentives for leakage, as it is unlikely that our performance can be moved from its current position to beyond frontier performance in the single five year period.

8. Leakage Cambridge region (C2)

Performance commitment name:	Leakage Cambridge region (C2)		
Short definition	Leakage level in the Cambridge supply region		
Units	Mega litres per day (Ml/d) to 1 decimal place		
Use of averaging	No averaging	Three year rolling ✓	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	This performance commitment is for the leakage level in the Cambridge supply region. We will fully adopt the industry consistent methodology for leakage reporting as published on Ofwat's website. We are currently implementing some aspects of this methodology and we plan to be fully compliant by 2020. Each year we provide a 'red amber green' assessment to Ofwat on our level of compliance.		

1. Company trend

This table shows our current performance and future performance commitment in annual leakage terms:

2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
13.5	13.2	14.3	14.4	13.5	13.5	13.1	12.7	12.3	11.9	11.5

The historically reported leakage values (in green) and the AMP7 performance commitment (in blue) are expressed in terms of our AMP6 leakage methodology. This is consistent with the way we have reported leakage in our draft water resources management plan.

Our AMP7 performance commitment is a 15% reduction from our current performance commitment. This is consistent with our draft water resources management plan which will remain unchanged for our final water resources management plan.

The new consistent methodology reporting (shadow reporting) has created uncertainties in comparing our future performance commitments to our historical reported numbers, so we have expressed our leakage targets in AMP6 methodology terms at the moment. We will commit to the 15% reduction from rebased leakage values as our compliance with the new consistent methodology improves. We will rebase historical values as we enter into the new price control period, following Ofwat's guidance, so that the three year rolling average is consistent.

We are planning to deliver the 15% reduction linearly over AMP7.

This table shows our current performance and future performance commitment as a three year rolling average:

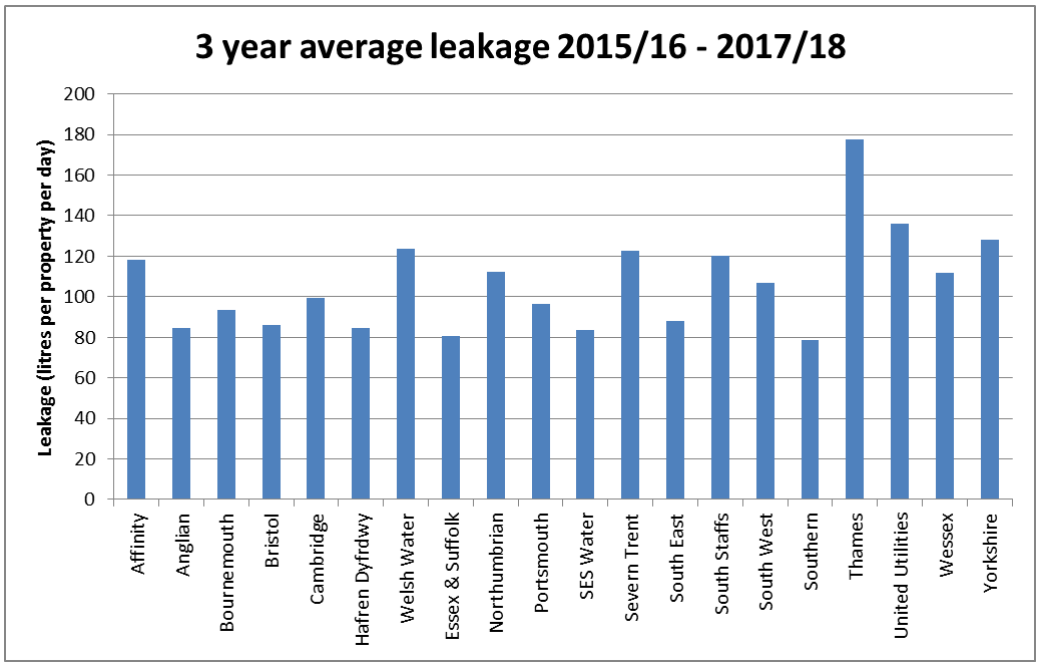
2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
-	-	13.7	14.0	14.1	13.8	13.4	13.1	12.7	12.3	11.9

It is the above three year rolling average that forms our performance commitment in the business plan.

2. Comparative performance

There are two normalised industry measures published on Discover Water: litres per property per day and m^3 per km of main per day. We have compared our performance against this industry data.

The two different normalisers create different results as the way in which they account for density is different. In the litres per property per day measure, regions which are more property dense are better accounted for as we estimate that a third of total leakage is on customers' pipes rather than our network assets. The m3 per km of main per day measure does not account for this, but does account better for regions where there is a longer than average network. We believe that the customer side leakage component is significant enough to make the litres per property per day measure a much more robust comparator for leakage across the industry, and for this reason we have primarily focussed on this metric when benchmarking our performance.



On the chart above, Cambridge region is approximately average on leakage, ranking 10th out of the 20 regional data points. A 15% reduction delivers a sustainable supply demand balance in our water resources management plan.

Water companies have also been reporting a 'shadow' leakage value using a revised methodology that all companies must use from 2020 onwards. However at the moment there is considerable uncertainty in the values reported due to the self disclosed level of compliance with this new methodology. For this reason we have not placed much weight on this as a comparator at the moment, however we will utilise it as the robustness of the data improves.

3. Upper quartile projection

There are still uncertainties surrounding the shadow data, so we think the best approach is to take a judgement view of where upper quartile might be, using the live and shadow data, and also a judgement of what reductions companies may undertake over the period.

Using the litres per property per day normalisation, the current upper quartile equivalent for SST would be between 11.7 and 13.6 Ml/d. Based on a 5% reduction for current upper quartile companies and a 15% reduction for all others, we would expect the upper quartile equivalent to be just over 12.0 Ml/d, using the 2016/17 shadow values as the base. Therefore our target of a 15% reduction to 11.5 Ml/d by 2024/25 is in the right ballpark on these assumptions.

For leakage, the industry upper quartile itself is a useful comparative benchmark, but of itself does not dictate strategy. All companies have a different mix of geographical and environmental factors which need to be considered when committing to a leakage reduction target.

4. Marginal cost of improvement

To achieve our target we have an increase in ALC cost. This is taken from the SELL cost curve as the difference between two points, current performance and future target performance. This is £29,833 per Ml/d.

We do not have transition capex schemes in the Cambridge region.

The total incremental cost is therefore £29,833 per Ml/d.

5. Handling uncertainty

Ofwat has proposed that leakage is measured over a 3 year rolling average to account for weather effects. This was preferable to having an annual value with a deadband. We have therefore adopted this approach.

6. Customer evidence

Customers have consistently demonstrated that leakage is a high priority in both qualitative and quantitative research, wanting us to go further than our current level of performance. Key insights from our customer engagement include:

- Leakage reduction consistently rated as a top 5 priority area in our foundation priorities and WRMP research and also in our WTP Maxdiff exercise study – seen as a core “hygiene factor” with current performance level not deemed acceptable. Leakage was often cited as the top priority to address among larger business customers;
- The majority of customers think that reducing leakage is morally the right thing to do, although we found in our qualitative workshops that the more informed they get about the costs and operational challenges associated with reducing leakage by significant levels the more balanced their judgement became;
- Received the highest willingness to pay (WTP) valuation of the ‘environmental’ attribute in our Wave 1 study, where significant levels of service improvements were shown to business and household customers. WTP valuation levels dropped in Wave 2 study when a lower level of service improvement was shown;
- We have also have triangulated our WTP data for leakage and own data with that of the industry and other studies and information we have. The final triangulated WTP value is £216,977 per Ml/d;
- Strong support that leakage is a measure in our qualitative Performance Commitment

workshops. Received few votes to be at industry leading level of performance, but service improvements were requested. Customers also wanted clarity on pipe ownership and the method of calculation for leakage targets;

- When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 96% of customers were prepared to pay for an improved level of leakage performance above our current service position (note that customers were started from a stretch service position) This evidences high demand for improved performance; and
- 69% of household and 31% of business accepted our proposed 2024/25 target, to reduce leakage to 11.5 Ml/d in our acceptability testing research. 99% of household and 93% of business customers said they understood the description of the measure.

7. Incentive type

Leakage will be a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

We have taken into account the starting level of performance, the three year average effect and the management control we have over leakage performance in determining our P10/P90 range. As with all measures, we have utilised a Monte Carlo model to provide a robust estimate of the likely risk level given the input distribution selected.

As our leakage target reduces over the period, we also have a changing P10/P90 profile by year, as follows:

As we move through the years, the reducing target becomes harder to achieve, hence this is reflected by a distribution that shifts from more symmetrical in the early part of the period to skewed by the end of the period.

9. Financial incentives

We have willingness to pay data for leakage and have triangulated our own data with that of the industry and other studies. The final triangulated willingness to pay value is £216,977 per Ml/d.

We used our triangulated willingness to pay value and our incremental cost value within Ofwat's formula to determine the incentive rates. However we found that there was imbalance in our incentives package when considered at the company level and against the P10/P90 range. We have therefore made further adjustments to the leaking incentives to improve this balance.

Firstly, we compared our data to the industry study compiled by Paul Metcalf. For leakage, after normalising, our values were approximately three times lower than the industry average. To improve balance, we have therefore increased both underperformance and outperformance rates by a factor of three.

Secondly, we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£1.1m per Ml/d.

The final outperformance payment rate, after scaling is £3.4m per Ml/d.

These rates may appear high against the South Staffs region rates at first, however they are operating over a much smaller range of change.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

Enhanced incentives are suitable when a company is proposing to shift the frontier performance level and communicate this innovation to other companies so that all customers can benefit.

We are not proposing enhanced incentives for leakage, as it is unlikely that our performance can be moved from its current position to beyond frontier performance in the single five year period.

9. Residential water consumption South Staffs region (C3)

Performance commitment name:	Residential water consumption South Staffs region (C3)		
Short definition	The average water consumption of residential customers in the South Staffs region.		
Units	Litres per person per day to 2 decimal places.		
Use of averaging	No averaging	Three year rolling ✓	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	This performance commitment is for the residential water consumption in the South Staffs supply region. We will fully adopt the industry consistent methodology for residential water consumption (per capita consumption) reporting as published on Ofwat's website. We are currently implementing some aspects of this methodology and we plan to be fully compliant by 2020. Each year we provide a 'red amber green' assessment to Ofwat on our level of compliance.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
128.89	127.54	130.35	129.33	129.13	128.93	128.73	128.53	128.33	128.13

Please note that these are all based on the current per capita consumption methodology. The future performance commitments align with our expected final water resources management plan profile and are predominantly delivered by our meter optant programme.

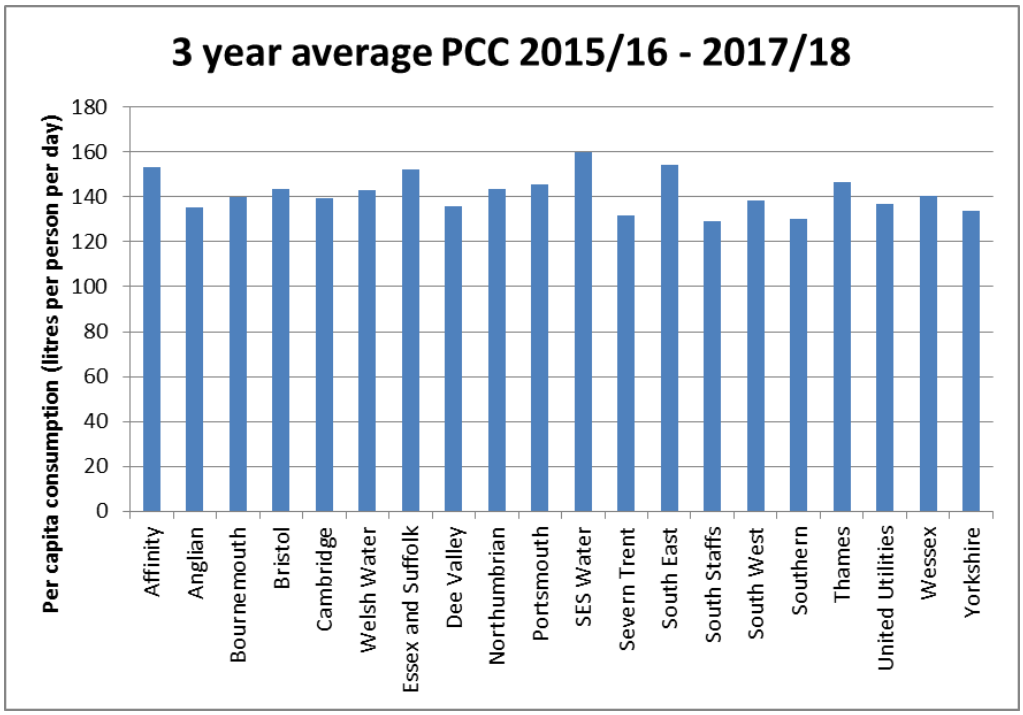
This table shows our current performance and future performance commitment as a three year rolling average:

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
-	-	128.93	129.07	129.60	129.13	128.93	128.73	128.53	128.33

It is the above three year rolling average that forms our performance commitment in the business plan.

2. Comparative performance

Comparative data is available on Discover Water, and from 2017/18 PCC has also been reported as a shadow measure. The shadow data still contains uncertainty, as there is still work to do for most companies on achieving full compliance.



The South Staffs region is the leading company for PCC. However it should be noted that there is a geographical trend to this metric, with companies in the South East of England having a greater PCC than companies in the Midlands and the north of England. This is due to a number of factors which have been investigated in a report produced by Artesia Consulting on behalf of a number of companies operating in the South East. http://www.anglianwater.co.uk/_assets/media/long-term-planning-framework.pdf

3. Upper quartile projection

Using the above published data, the industry upper quartile is currently at approximately 136 litres per person per day, based on the three year average. However, as highlighted above, the geographical picture in England demonstrates that there are good underlying reasons why there is variation across the country, and therefore the upper quartile is not a good measure of performance for this metric.

4. Marginal cost of improvement

Reducing water consumption can be attributed to the following activities:

- Education about water wastage, including the use of online portals such as our WaterSmart trial in our Cambridge supply region.
- Supply of devices that reduce water consumption, for example shower or toilet devices.
- Fitting water meters, which encourage customers to reduce their use (although the extent is dependent on their circumstances).

The total annualised costs of these activities are £253,333.

We expect these activities to achieve our in-year target of 128.13 l/p/d by 2024/25, compared to our latest forecast position of 129.13 l/p/d in 2019/20. This is a reduction of 1 l/p/d over the period which is aligned to the metering programme and water efficiency programme.

However, this data is not helpful for the incremental cost required for the incentive formula. Due to the nature of the water efficiency activity, it is difficult to determine how much of the expenditure is necessary to maintain PCC at a stable level and how much of it will act as the 'incremental' component and see performance improve. This is partly why we have chosen to use customer priorities to help value the incentive for this measure.

5. Handling uncertainty

Ofwat has proposed that per capita consumption is measured over a 3 year rolling average to account for weather effects. This was preferable to having an annual value with a deadband.

6. Customer evidence

We do not have a direct willingness to pay value for residential water consumption. Reducing water consumption can be attributed to the following activities which our customers have supported in our WRMP engagement:

- Education about water wastage. Customers told us they expected us to focus our efforts on educating young people about the need to use water responsibly, but that all generations need to be covered. The early results from our WaterSmart trial in our Cambridge supply region have proved positive in terms of engagement with the service;
- Supply of devices that reduce water consumption, for example shower or toilet devices. Customers supported the use of these types of devices in our WRMP workshops and there was also a strong level of appeal for a home water audit service among groups of customers who are more engaged with their water service in our propositions testing study; and
- Fitting water meters, which encourage customers to reduce their use. There was strong support in both our supply regions for increasing the level of metering, particularly in the South Staffs region. However customers were clear that vulnerable customers should be protected.

PCC received a mixed response for being a measure in our qualitative Performance Commitment workshops. It received a low number of votes for us to be at industry leading or "top 5" levels of performance, and one of the highest number of votes to be dropped. Some customers recognised the need to reduce their consumption and wanted us to make a clear link between this area and water efficiency and also be clear that this measure is an "average" figure.

69% of customers (household and business) accepted our proposed 2024/25 PCC target, to reduce combined PCC to 131 l/p/d, in our acceptability testing research. Also, 83% said they understood the description of the measure. This measure was tested as a combined target but was subsequently split regional following challenge from our customer panel.

7. Incentive type

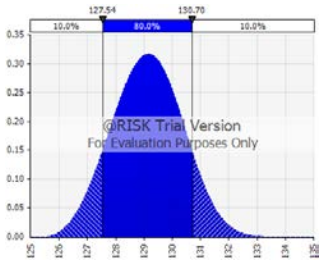
Residential water consumption will be a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

Measurement of water consumption has inherent uncertainties, which are dealt with through the

use of a defined methodology that is ideally consistent across years and that all companies use for consistency across the industry. Water consumption also is highly dependent on customer behaviour which is driven by the weather, for example in the 2018 summer water consumption has been consistently higher in both of our regions, despite the CAM region having the significantly higher meter penetration. Therefore in our P10/P90 assumptions we have considered the effect of the reducing target and of the activity we are doing to try and achieve that, but we have had to offset this with uncertainty about the external environment and what might drive customer behaviour to be different from our desired direction of travel. On this basis, we reasoned that the input distribution was symmetrical, i.e despite the reducing target there is insufficient reason for us to suggest that the target gets any harder to achieve, as we think the main driver will be the customer behaviour driven by externalities, which is outside of our control and could go in either direction.

We have therefore used the following input distribution shape for all years. It tracks the reducing target downwards, but remains symmetrical around it.



9. Financial incentives

We used the willingness to pay value for water metering as the proxy for PCC, as we did not think it was appropriate to ask directly about PCC in a survey. We triangulated our own data with that of the industry and other studies. The final triangulated willingness to pay value is £301,087 per 1 l/p/d.

We used our triangulated willingness to pay value however the incremental cost was difficult to determine, and we found that the formula resulted in an imbalance in our incentives package when considered at the company level and against the P10/P90 range. We have therefore made further adjustments to the incentives to improve this balance.

We also had challenge from our Customer Panel on whether it was right to incentivise PCC, especially for outperformance payments, where customers may perceive that them paying an increased bill due to them saving water is perverse.

For these reasons we have adjusted our incentive valuations for PCC using a weighting between leakage, and metering and education. This means that the incentives become more weighted towards leakage and away from PCC, which we think is more proportional to customer's views.

We also noted that the difference in activity levels meant that the SST incentive rate and the CAM incentive rate, for this measure, were not aligned. We felt that this was not appropriately balanced since it is the CAM region that has the greater water resource challenge and therefore the more challenging target, and due to the higher meter penetration, is the more difficult region to make a step change in. We therefore equalised the incentive rates for PCC across both regions.

As with all of our incentives, we have then applied overall scaling factors at the package level. This is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£92k per 1 l/p/d.

The final outperformance payment rate, after scaling, is £64k per 1 l/p/d.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for residential water consumption. Whilst we are operating at or around the frontier in the South Staffs region, our means of affecting the outturn value is limited to the above defined activity, which is only predicted to have a small effect over a long period of time. It is also likely that the weather, despite the use of a three year average, could still have a greater influence over the measure than the activity we are using to reduce it. Furthermore, our Customer Panel challenged whether it was appropriate to have outperformance incentives on a measure that customers may perceive that an increased bill due to them reducing their water use is perverse.

10. Residential water consumption Cambridge region (C4)

Performance commitment name:	Residential water consumption Cambridge region (C4)		
Short definition	The average water consumption of residential customers in the Cambridge region.		
Units	Litres per person per day to 2 decimal places.		
Use of averaging	No averaging	Three year rolling ✓	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	This performance commitment is for the residential water consumption in the Cambridge supply region. We will fully adopt the industry consistent methodology for residential water consumption (per capita consumption) reporting as published on Ofwat's website. We are currently implementing some aspects of this methodology and we plan to be fully compliant by 2020. Each year we provide a 'red amber green' assessment to Ofwat on our level of compliance.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
132.91	139.79	144.62	143.79	142.58	141.37	140.16	138.95	137.74	136.53

Please note that these are all based on the current per capita consumption methodology. The future performance commitments align with our expected final water resources management plan profile and are delivered by our meter optant programme plus an increase in water efficiency activity.

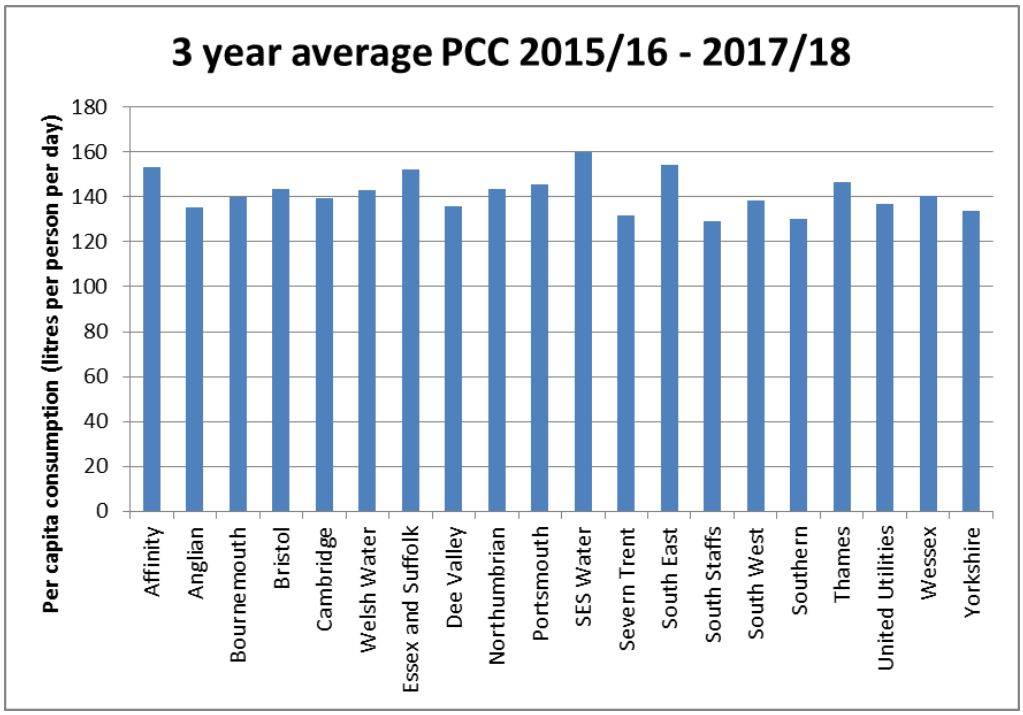
This table shows our current performance and future performance commitment as a three year rolling average:

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
-	-	139.11	142.73	143.66	142.58	141.37	140.16	138.95	137.74

It is the above three year rolling average that forms our performance commitment in the business plan.

2. Comparative performance

Comparative data is available on Discover Water, and from 2017/18 PCC has also been reported as a shadow measure. The shadow data still contains uncertainty, as there is still work to do for most companies on achieving full compliance.



The Cambridge region is better than industry average for PCC. However it should be noted that there is a geographical trend to this metric, with companies in the South East of England having a greater PCC than companies in the Midlands and the north of England. This is due to a number of factors which have been investigated in a report produced by Artesia Consulting on behalf of a number of companies operating in the South East.
http://www.anglianwater.co.uk/_assets/media/long-term-planning-framework.pdf

Based on the findings of this report, we would expect the Cambridge region to have a higher PCC than our Midlands region and areas in the north of England.

3. Upper quartile projection

Using the above published data, the industry upper quartile is currently at approximately 136 litres per person per day, based on the three year average. However, as highlighted above, the geographical picture in England demonstrates that there are good underlying reasons why there is variation across the country, and therefore the upper quartile is not a good measure of performance for this metric.

4. Marginal cost of improvement

Reducing water consumption can be attributed to the following activities:

- Education about water wastage, including the use of online portals such as our WaterSmart trial in our Cambridge supply region.
- Supply of devices that reduce water consumption, for example shower or toilet devices.
- Fitting water meters, which encourage customers to reduce their use (although the extent

is dependent on their circumstances).

The total annualised costs of these activities are £70,667.

We expect these activities to achieve our in-year target of 136.53 l/p/d by 2024/25, compared to our latest forecast position of 142.58 l/p/d in 2019/20. This is a reduction of 6 l/p/d over the period which is aligned to the metering programme and water efficiency programme.

However, this data is not helpful for the incremental cost required for the incentive formula. Due to the nature of the water efficiency activity, it is difficult to determine how much of the expenditure is necessary to maintain PCC at a stable level and how much of it will act as the 'incremental' component and see performance improve. This is partly why we have chosen to use customer priorities to help value the incentive for this measure.

5. Handling uncertainty

Ofwat has proposed that per capita consumption is measured over a 3 year rolling average to account for weather effects. This was preferable to having an annual value with a deadband.

6. Customer evidence

We do not have a direct willingness to pay value for residential water consumption. Reducing water consumption can be attributed to the following activities which our customers have supported in our WRMP engagement:

- Education about water wastage. Customers told us they expected us to focus our efforts on educating young people about the need to use water responsibly, but that all generations need to be covered. The early results from our WaterSmart trial in our Cambridge supply region have proved positive in terms of engagement with the service;
- Supply of devices that reduce water consumption, for example shower or toilet devices. Customers supported the use of these types of devices in our WRMP workshops and there was also a strong level of appeal for a home water audit service among groups of customers who are more engaged with their water service in our propositions testing study; and
- Fitting water meters, which encourage customers to reduce their use. There was strong support in both our supply regions for increasing the level of metering, particularly in the South Staffs region. However customers were clear that vulnerable customers should be protected.

PCC received a mixed response for being a measure in our qualitative Performance Commitment workshops. It received a low number of votes for us to be at industry leading or "top 5" levels of performance, and one of the highest number of votes to be dropped. Some customers recognised the need to reduce their consumption and wanted us to make a clear link between this area and water efficiency and also be clear that this measure is an "average" figure.

69% of customers (household and business) accepted our proposed 2024/25 PCC target, to reduce combined PCC to 131 l/p/d, in our acceptability testing research. Also, 83% said they understood the description of the measure. This measure was tested as a combined target but was subsequently split regional following challenge from our customer panel.

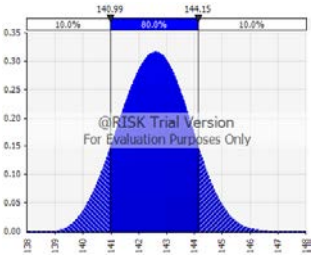
7. Incentive type

Residential water consumption will be a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

Measurement of water consumption has inherent uncertainties, which are dealt with through the use of a defined methodology that is ideally consistent across years and that all companies use for consistency across the industry. Water consumption also is highly dependent on customer behaviour which is driven by the weather, for example in the 2018 summer water consumption has been consistently higher in both of our regions, despite the CAM region having the significantly higher meter penetration. Therefore in our P10/P90 assumptions we have considered the effect of the reducing target and of the activity we are doing to try and achieve that, but we have had to offset this with uncertainty about the external environment and what might drive customer behaviour to be different from our desired direction of travel. On this basis, we reasoned that the input distribution was symmetrical, i.e despite the reducing target there is insufficient reason for us to suggest that the target gets any harder to achieve, as we think the main driver will be the customer behaviour driven by externalities, which is outside of our control and could go in either direction.

We have therefore used the following input distribution shape for all years. It tracks the reducing target downwards, but remains symmetrical around it.



9. Financial incentives

We used the willingness to pay value for water metering as the proxy for PCC, as we did not think it was appropriate to ask directly about PCC in a survey. We triangulated our own data with that of the industry and other studies. The final triangulated willingness to pay value is £42,378 per 1 l/p/d.

We used our triangulated willingness to pay value however the incremental cost was difficult to determine, and we found that the formula resulted in an imbalance in our incentives package when considered at the company level and against the P10/P90 range. We have therefore made further adjustments to the incentives to improve this balance.

We also had challenge from our Customer Panel on whether it was right to incentivise PCC, especially for outperformance payments, where customers may perceive that them paying an increased bill due to them saving water is perverse.

For these reasons we have adjusted our incentive valuations for PCC using a weighting between leakage, and metering and education. This means that the incentives become more weighted towards leakage and away from PCC, which we think is more proportional to customer's views.

We also noted that the difference in activity levels meant that the SST incentive rate and the CAM incentive rate, for this measure, were not aligned. We felt that this was not appropriately balanced since it is the CAM region that has the greater water resource challenge and therefore the more challenging target, and due to the higher meter penetration, is the more difficult region to make a step change in. We therefore equalised the incentive rates for PCC across both regions.

As with all of our incentives, we have then applied overall scaling factors at the package level. This is covered in further detail in a separate commentary document where we have discussed these

top down factors.

The final underperformance penalty rate, after scaling, is -£92k per 1 l/p/d.

The final outperformance payment rate, after scaling, is £64k per 1 l/p/d.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for residential water consumption. The CAM region has a higher PCC than the industry average at the moment and it is unlikely that this would be moved to a frontier position in the period. It is also likely that the weather, despite the use of a three year average, could still have a greater influence over the measure than the activity we are using to reduce it. Furthermore, our Customer Panel challenged whether it was appropriate to have outperformance incentives on a measure that customers may perceive that an increased bill due to them reducing their water use is perverse.

11. Environmentally sensitive water abstraction (C5)

Performance commitment name:	Environmentally sensitive water abstraction (C5)		
Short definition	Compliance with pre-defined water abstraction thresholds for our designated abstraction incentive mechanism (AIM) sites.		
Units	Score.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common	Bespoke ✓	
Long definition	We will identify the designated AIM sites and their abstraction baselines in our September business plan. We will continue to use the AIM scoring approach that is currently in the APR table 3C, which is as follows: Step 1: Assess AIM performance for individual sites: *Site AIM performance in Ml = (average daily abstraction during period when flows are at or below the trigger threshold - baseline average daily abstraction during period when flows are at or below the trigger threshold) * length of period when flows are at or below the trigger threshold* Step 2: Calculate normalised AIM performance to account for the site output volume: *Normalised AIM performance = [Site AIM performance in Ml] / (baseline average daily abstraction * length of period when river flows are at or below the trigger threshold)* Step 3: Sum the normalised AIM performance to generate the annual total.		

1. Company trend

2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
-0.90	-0.64	0	0	0	0	0	0	0

We have defined our AIM sites and baselines in conjunction with the Environment Agency, and our target is full compliance (a score of zero) with these baselines. The business plan table APP3 contains information about our AIM parameters.

2. Comparative performance

There is some industry data on AIM reported in the APR reporting however not all companies have AIM sites and local environmental conditions dictate baselines. We do not think any meaningful comparison can be drawn from the data available.

3. Upper quartile projection

It is not relevant to generate an upper quartile performance level as all companies' AIM sites differ and not all companies have AIM sites.

4. Marginal cost of improvement

We have evaluated the marginal cost of operating the AIM sites we are proposing and we believe it to be relatively small. The main cost incurred is the sourcing of water from another site (which does not affect the same watercourse) in the event of the AIM thresholds being triggered. However this is a relatively small cost and one which is variable, as it is dependent on local conditions at the time of the trigger. Therefore we have elected to assume that the marginal cost in this measure is negligible.

5. Handling uncertainty

This measure is well defined in terms of triggers and the standard formula normalises for the volume of the AIM sites. It is not necessary to include any deadband or averaging to allow for volatility in this measure.

6. Customer evidence

In our WRMP engagement customers were very clear that they did not consider drilling new boreholes to be an acceptable supply side option due to environmental considerations, but they showed strong support for using existing borehole and extractions sites as long as the environment was not adversely damaged.

Our household and business customers also gave relatively high WTP valuations to protecting water sources, compared to other environmental attributes. Customers required education though in order to make a clear link link between our activity as a water company and the need to protect environmentally sensitive sites.

Whilst there was support for this measure in our qualitative Performance Commitment workshops, some customers found it hard to fully understand the proposed measure. As a result, it did not receive many votes for us to be at the "top 5" level of industry performance.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 81% of customers were prepared to pay for an improved level of protection for protecting water sources above our current service position (note that customers were started from a stretch service position). Whilst not a direct comparison, it indicates that the majority of customers want us to ensure that we protect environmentally sites.

88% of customers (household and business) accepted our proposed 2024/25 target, to protect 100% of sites, in our acceptability testing research. Also, 89% said they understood the description of the measure.

7. Incentive type

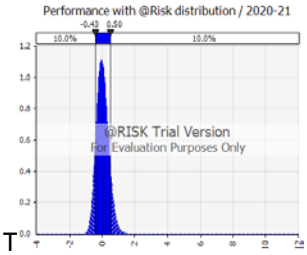
We are proposing that this measure is a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

We have considered the potential upside and downside risks on our AIM measure. The baselines we have agreed with the EA are commensurate to the environmental conditions at the sites we are

including.

We expect to be able to control our abstraction at our AIM sites to the EA baselines under typical operating conditions. There is a small risk that adverse conditions could conflict with AIM baseline requirements however, and as such we have included a tight risk distribution around the metric. We expect to be within +/- 1 point per site under normal operating conditions. We have assigned the following distribution to all years.



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9. Financial incentives

We have been able to value the AIM measure using Ofwat's incentive formula. As described above, we believe the incremental cost to be negligible in this case, and we obtained a direct WTP value from customers for watercourse improvements which we can directly translate into benefit for this measure.

Finally we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£147k per Hectare.

The final outperformance payment rate, after scaling is £147k per Hectare.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for AIM, as the local nature of the sites and baselines which define it are not comparable across companies.

12. Supporting water efficient house building (C6)

Performance commitment name:	Supporting water efficient house building (C6)		
Short definition	The total volume of water saved as a result of new residential properties built to HQM or BREEAM accreditation standards which meet 100 litres per person per day water efficiency level.		
Units	Mega litres.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	We are committed to supporting construction development and believe developers can play their part when designing and building more water efficient properties now and in the future. To demonstrate our commitment, we have introduced, from April 2018, water efficiency incentives within our developer charges scheme to all new build BRE accredited properties; Home Quality Mark (HQM) for housing and the Environmental Assessment Method (BREEAM) for high rise residential developments, where that development achieves 100 litres per person per day water efficiency level. We are also extending our developer engagement, to work with developers and BRE to raise awareness of our incentive and wider expertise on water efficiency we can provide. The HQM and BREEAM standards are well established, externally controlled and assessed by BRE and their affiliates, and are recognised across the developer and building industry. In making this incentive available, we are playing our part in broader construction efficiency in the residential sector as well as achieving a lower level of water consumption to benefit our future supply demand balance. By making use of an established and recognised standard within our incentive mechanism, we do not create an additional administrative burden on us or on developers. We believe that 100 litres per person per day is an appropriate and achievable threshold for developers. Going below this means more complex grey water, dual network systems (as used in the Cambridge Eddington development), which are unlikely to be commercially viable for the developments we have in our urban areas in the West Midlands or Cambridge. It is a longer term activity to influence developer thinking and evolve our partnerships with them, and a lag between this engagement and the design of new builds, construction and final accreditation being achieved, and water efficiency savings being realised. For this reason we believe that a non-financial incentive and an end of period performance commitment		

	is appropriate on this measure. We will still publish our progress in our annual performance report so that our efforts and successes are transparent for stakeholders.

1. Company trend

2020/21	2021/22	2022/23	2023/24	2024/25
-	-	-	-	30.6

This is a new measure that we have not reported before. Our AMP7 target is a single end of period target, because there is considerable uncertainty on the lag between the marketing and engagement on our charges rebate, the take up by developers and the speed at which they will construct properties that meet the accreditation criteria.

2. Comparative performance

We do not have any industry data on this theme.

3. Upper quartile projection

We do not have any industry data on this theme.

4. Marginal cost of improvement

Not applicable as we are proposing this measure is a non-financial incentive.

5. Handling uncertainty

Not applicable as we are proposing this measure is a non-financial incentive.

6. Customer evidence

Customers have demonstrated that the need for water recycling to reduce demand for water is a priority in both qualitative and quantitative research, wanting us to go further to support them with rainwater harvesting solutions at their properties and also to work with developers to make homes more water efficient.

In our willingness to pay research we used a contingency valuation approach, separate from the service improvements tested in the main choice experiment. Here, survey respondents simply indicated their likelihood to take up a grey water system at a given price. Using the Turnbull non-parametric method' to estimate WTP values this gave us a total investment pot of £3.7m across both our supply regions. However, we have not used this in our approach as customer support for installing grey water harvesting schemes at an individual property level has not been sufficient to support developing a service offering at this time.

Strong support for water efficient homes being a measure in our qualitative Performance Commitment workshops. Received a high number of votes for us to be in the "top 5" for industry performance in our Cambridge region. Customers found the measure easy to understand.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 80% of customers wanted more water efficient homes to be built (note that customers were started from a stretch service position and that bills dropped as more water efficient homes are built as savings from reduced demand are realised).

In both our Performance Commitment workshops and the on-line survey there was an even split as

to whether this measure should be reputational or financial.

Our engagement with developers has shown interest in building water efficient homes and our incentivisation approach is viewed as a positive step forward in our approach to working more effectively to support our customers in the new connections market.

67% of customers (household and business) accepted our proposed 2024/25 target, to save 30.6M/l, in our acceptability testing research. Also, 92% said they understood the description of the measure.

7. Incentive type

This measure will be non-financial as:

- We already provide an incentive directly to developers in our developer charges scheme to incentivise construction to the HQM or BREEAM standards.
- This metric is focussed on a very small subset of customers (new properties built to the above standards) and is not relevant to existing customers.
- As a new measure, we need to monitor and evolve our implementation, and want to retain flexibility to adjust our strategy if needed.

8. P10/P90 range

Not applicable as we are proposing this measure is a non-financial incentive.

9. Financial incentives

Not applicable as we are proposing this measure is a non-financial incentive.

10. Enhanced incentives

Not applicable as we are proposing this measure is a non-financial incentive.

13. Protecting wildlife, plants, habitats and catchments (C7)

Performance commitment name:	**Protecting wildlife, plants, habitats and catchments (C7)**		
Short definition	The area of land that we actively manage to protect wildlife, plants, habitats and catchments.		
Units	Hectares.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common	Bespoke ✓	
Long definition	This performance commitment supports delivery of our WINEP and our broader environmental strategy including catchment management activity. We will measure the area of land that we actively manage to protect and encourage wildlife, plants and habitats, including the following themes: • Projects to protect, restore and enhance any NERC section 41 species and habitats that are present on any land we own or manage to prevent deterioration of populations and habitats. • Investigations and implementation of river restoration projects on chalk streams and rivers to improve habitats and maximise flow for Brown Trout. • Delivery of multiple partnership projects aiming to prevent introduction and spread of invasive species and reduce the risk of spread of INNS on the land we own or manage, where these will prevent deterioration of a waterbody or meet the conservation objectives of a SSSI or HD site. • Continuation of our PEBBLE fund to support projects in our area that have a biodiversity benefit, including tree planting schemes. We will also include the area of land where we have undertaken catchment management activity which seeks to maintain and improve the river environment and adjacent land via the implementation of measures to protect and improve raw water quality and the environment. We do this by engaging with land owners and land tenants to support them in introducing methods to protect and improve the raw water quality. These measures include our existing 'slug pesticide rethink' scheme, termed SPRING, and we will also look at reducing agricultural diffuse losses of pesticides, nitrates, sediments and phosphates.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
76	92	119	129	139	194	320	451	592	690

For AMP7 this performance commitment incorporates our biodiversity and our catchment management activity, which is a significant expansion on the AMP6 performance commitment. Some of this is WINEP derived and some is additional.

2. Comparative performance

We do not have any comparative data on this performance commitment.

3. Upper quartile projection

We do not have any comparative data on this performance commitment.

4. Marginal cost of improvement

We have examined our operational and capital costs for delivering these environmental targets. The capital costs are contained with our NEP enhancement programme and are approximately £2.2 million however as they deliver a large number of hectares the unit cost is relatively small at just over £4k per Hectare. Including internal operating costs our final incremental cost is £4.7k per Hectare.

5. Handling uncertainty

The projects that are part of our performance commitment are our best view of the WINEP requirements and of other schemes that we will run.

6. Customer evidence

Customers have consistently demonstrated that protecting habitats and water catchments is a priority in both qualitative and quantitative research, wanting us to go further than our current level of performance.

Rated as a mid-ranked priority area in our foundation priorities and WRMP research and also in our WTP Maxdiff exercise study during 2017. Importance as a priority increased when customers were informed about our activities. Our engagement has also noted a step change in customers' views in 2018, with environmental activities being prioritised more.

Protecting habitats and protecting rivers received some of the lowest willingness to pay (WTP) valuation of any of the 17 attributes tested in our Wave 1 study, among both household and business customers.

The valuation in our Wave 2 study increased when we changed the protecting rivers definition to a catchment management approach and changed the context from WTP to willingness to accept. Protecting habitats attribute was not changed and attracted similarly low WTP valuations as wave 1.

As we obtained willingness to pay values for biodiversity and catchment management and our programme is approximately 50:50 for both types of delivery, we have used a simple average of these two values to create a single value, which is £16,970 per Hectare. Again, we have triangulated our WTP data for our water quality measures and own data with that of the industry and other studies and information we have.

Strong support for protecting habitats and protecting water sources being measures in our qualitative Performance Commitment workshops. Received a relatively high number of votes to be at "top 5" level of industry performance. A noticeable number of customers thought the two areas should be merged as they were similar in nature, which we have subsequently actioned.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 81% of customers were prepared to pay for an improved level of protection for protecting water sources above our current service position (note that customers were started from a stretch service position). The figure was 71% for protecting habitats. This indicates that customers want us to improve on our current level of activity.

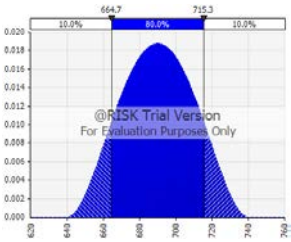
75% of customers (household and business) accepted our proposed 2024/25 target, to protect 690 hectares) in our acceptability testing research. Also, 94% said they understood the description of the measure.

7. Incentive type

We are proposing that this measure is a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

Our performance commitment is based on a detailed build up of NEP and other types of schemes that we will deliver in AMP7. However as some schemes are based on grants and can be dependent on the take up of those schemes, there is some degree of range around our targets. We expect that by 2024/25 there is an approximate +/- 25 Hectare likely uncertainty to the P10 and P90 levels, representing an approximate 3.5% uncertainty level as measured in Hectares. This does not translate to delivery of the NEP programme itself, as we will ensure we deliver the full objectives of these programmes. The following distribution has been assigned by year 2024/25.



9. Financial incentives

We have used our calculated willingness to pay value and our incremental cost value within Ofwat's formula to determine the incentive rates.

However, our customer panel challenged us that the resultant valuations appeared to be large in the context of the value of land. They were concerned that a large incentive valuation could create a risk of a perverse incentive whereby land could be either purchased or rented in order to ensure we meet or exceed the performance commitment. This would not be in the spirit of the measure and would not be fair to customers. We agreed with the panel's views, and therefore we applied a top down adjustment to the incentive rates to ensure that they fell below an estimate of land rental value.

Finally we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£3.8k per Hectare.

The final outperformance payment rate, after scaling is £3.8k per Hectare.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for this performance commitment as there is no industry comparable data available to benchmark our performance.

14. Carbon emissions (C8)

Performance commitment name:	Carbon emissions (C8)		
Short definition	The amount of carbon emissions we have from our operational activities, expressed as kilograms per connected property.		
Units	Kilograms per connected property.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	The amount of operational carbon emissions we have, expressed as kilograms per connected property. Operational carbon emissions includes: • Power use • Vehicle fuel • Fuel for on site power generation Carbon emissions are calculated by multiplying each type of fuel by an emissions factor, which defines the amount of carbon that is emitted, considering the upstream chain, by that type of fuel. Emissions factors change each year, as the fuel mix used within the grid changes and emissions factors are reviewed to reflect this. Changing emissions factors do not however give a stable means of assessing our own carbon reduction, as some of the reduction in the amount of carbon reported will be attributable to emissions factors changing. Therefore, we propose to fix the emissions factors we will use to report this measure over the period, at the 2019/20 level. This means that the 2019/20 year acts as a baseline for the AMP7 target and we can measure our reduction from a fixed point. We will express our carbon emissions, which is normally reported in tonnes, as kilograms per connected property. This allows growth in the property base to be taken account of, which is a proxy for increasing demand. However because we are not using volume as a normaliser, this allows us to reflect the reduction in absolute emissions we will get from our leakage and water consumption targets, in our target. Customer's supported this link between carbon and water demand reduction.		

1. Company trend

2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
69	68	68	66	64	61

2. Comparative performance

Information on water company performance is published on Discover Water, normalised per Mega litre of water supplied. However, it is not appropriate to compare companies using this normaliser or our proposed per connected property normaliser, because neither of these take account of the topography of our area, which, along with volume, is a key component in pumping costs. At the time of development, Discover Water elected to use a simpler normaliser and include text that this wasn't comparable across companies due to these local factors.

3. Upper quartile projection

As above, an upper quartile projection is not appropriate for this measure because the published data does not take account of important local factors such as topography.

4. Marginal cost of improvement

Not applicable as we are proposing this measure is a non-financial incentive.

5. Handling uncertainty

Not applicable as we are proposing this measure is a non-financial incentive.

6. Customer evidence

Customers have consistently demonstrated that investing in renewable energy to guard against rising energy costs is a priority in our qualitative and quantitative research. It was rated as a mid-ranked priority area in our foundation priorities and WRMP research and also in our WTP Maxdiff exercise study during 2017. Our engagement has also noted a step change in customers' views in 2018, with the need for more environmental activities being prioritised more.

Renewable energy received one of the higher environmental willingness to pay (WTP) valuations in our Wave 1 study among both household and particularly business customers. WTP valuation levels dropped in Wave 2 study when a lower level of service improvement was shown.

In our qualitative Performance Commitment workshops and on-line survey there was no overwhelming support for dropping carbon as a measure.

In our qualitative acceptability testing customers told us that they would be willing to pay a small amount more on their bills for us to enhance the amount of renewable energy we use to power our network.

7. Incentive type

We are proposing this incentive to be non-financial. This is because that the vast majority of our carbon reduction commitment will be delivered through reducing the amount of water we pump on a per customer basis, through leakage reduction and water efficiency improvements. These two performance level s are already incentivised in their own right.

8. P10/P90 range

Not applicable as we are proposing this measure is a non-financial incentive.

9. Financial incentives

Not applicable as we are proposing this measure is a non-financial incentive.

10. Enhanced incentives
Not applicable as we are proposing this measure is a non-financial incentive.

15. Compliance risk index (D1)

Performance commitment name:	Compliance risk index (D1)		
Short definition	Compliance with drinking water quality regulations, as measured using the DWI's compliance risk index metric.		
Units	Score		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under ✓	Non-financial
Methodology used	Industry common ✓**(DWI)**	Bespoke	
Long definition	This measure is an industry common measure with the assessment methodology controlled by the DWI.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
2.96	2.81	5.98	3.9	3.9	0	0	0	0	0

CRI is a new measure calculated by the DWI.

2. Comparative performance

Using the DWIs 2017/18 data, of the 20 water company regions, our SST region was 3rd worst and our CAM region was joint 6th best. We will be reporting the combined company value.

The industry average score in 2016 was 4.09 and in 2017 was 3.19, a combined average of 3.6 points.

3. Upper quartile projection

Upper quartile for 2017, out of 20 water company regions, was 1.25 points. In 2016 the upper quartile was 1.63.

4. Marginal cost of improvement

It has been difficult to estimate a marginal cost for improvement for the CRI measure. Whilst the health and quality compliance of our assets is within our control, there is also an underlying random volatility within water quality compliance. This random element was experienced within the existing compliance measure, Mean Zone Compliance, as well. Our asset maintenance programme all contributes to compliance with CRI, however even assuming a small proportion of it as an incremental cost, this still results in a large incremental cost value, and one which cannot follow a robust process. We do not believe that a robust incremental cost value can be assigned to CRI and therefore the default Ofwat formula will not work.

5. Handling uncertainty

This measure is new and replaces the mean zone compliance index (MZC). To date we have only seen two years of industry wide comparable data and understand there is considerable scope for

volatility within the measure. We operate two large water treatment works within our Staffs region that supply approximately 60% of customers. If we experience a single compliance failure at either works the method of multiplication within CRI has a significant impact on our overall performance, companies operating multiple smaller works or with much larger customer bases would experience far less of an impact from a single failure. As with the previous MZC measure, whilst our target is for full compliance, we would realistically expect some small risk of failure to be present, the number of companies actually experiencing zero compliance failures in a year is extremely rare.

For these reasons, we are proposing to adopt a deadband at the industry average level, and a cap on underperformance penalties at our 5 percentile level (9.2 points). The deadband is to allow us to improve the data set and better understand the 'normalised' level of performance. We would therefore pay an underperformance penalty if we were worse than average. The industry average for the last two years has been 3.6 points. This dead-band and cap would still give a wide working range for the measure and allow for penalty payments up to £465k per annum.

6. Customer evidence

Customers are supportive of this measure and our large investment in treatment works in our South Staffs region that will deliver the step change in our performance. Customers have consistently demonstrated that receiving safe, clean water supply is the "number 1 priority" in both our qualitative and quantitative research engagement.

Water not safe to drink received one of the highest willingness to pay (WTP) valuations of the 17 attribute tested in our Wave 1 study, where significant levels of service improvements were shown to household and business customers.

WTP valuation levels dropped in Wave 2 study for water not safe to drink when a lower level of service improvement was shown.

We have also have triangulated our WTP data for our water quality measures and own data with that of the industry and other studies and information we have. The final triangulated WTP values per property for Water not safe to drink is £1,664 per property affected.

Strong support that water quality compliance is a measure in our qualitative Performance Commitment workshops. Received largest number votes to be at either an industry leading level of performance or "top 5". Customers stated this measure was fundamental to their expectations and found it to be clear.

75% of customers (household and business) accepted our proposed 2024/25 water quality target, 100% of tests passed, in our acceptability testing research. Also, 95% said they understood the description of the measure.

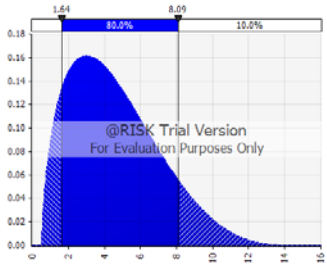
7. Incentive type

This measure will be an underperformance penalty only measure. It is appropriate to incur a penalty for water quality non-compliance beyond the level of random noise, and it is not appropriate to install an outperformance incentive as the expectation, and therefore the target, is for full compliance.

8. P10/P90 range

Whilst our target is for full compliance, practically it is unlikely that this would occur, as there is a strong element of random noise within the water quality compliance programme, and our reliance on two large treatment works in the South Staffs region amplifies the score if a failure should occur at these works. We have assumed a distribution which is skewed towards full compliance but which

still leaves a small likelihood of a failure occurring which delivers a large score in the index. We believe this is a fair representation of the likely performance profile for CRI given the data we have so far and how the DWI formula works. The distribution below applies to all years.



9. Financial incentives

As for the marginal cost estimate, valuing CRI has been difficult because whilst we collected WTP data from customers on some common water quality themes they experience, these are not directly translatable to a CRI score due to the complexities of the formula and the many other parameters involved in water quality compliance. We attempted to use the WTP data to derive the incentive but we could not find a robust way of achieving a valuation.

When we examined the package as a whole, we identified that CRI was causing a significant imbalance, as because it is volatile and the means of valuation was not robust, it was attracting a significant share of the P10 penalty risk. We decided to rebalance the package to better align the water quality measures of CRI and customer contact with the priorities that customers expressed to us and to give the package a better balance overall between the water quality measures and across other measures. This means we have reduced the incentive on CRI and lifted the incentive on the water quality contacts measure.

Finally we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£83k per 1 CRI point.

10. Enhanced incentives

We do not propose enhanced incentives, as this is a penalty only measure so would not be a symmetrical incentive. Additionally, there is also the potential of prosecution by the DWI for any excessive levels of non-compliance.

16. Supply interruptions (D2)

Performance commitment name:	Supply interruptions (D2)		
Short definition	Average minutes of interruption each connected property experiences for interruptions of 3 hours or greater.		
Units	hours:minutes:seconds		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	This performance commitment is for supply interruptions across both supply regions. We will fully adopt the industry consistent methodology for supply interruptions reporting as published on Ofwat's website. We are fully compliant with the industry consistent methodology. Each year we provide a 'red amber green' assessment to Ofwat on our level of compliance.		

1. Company trend

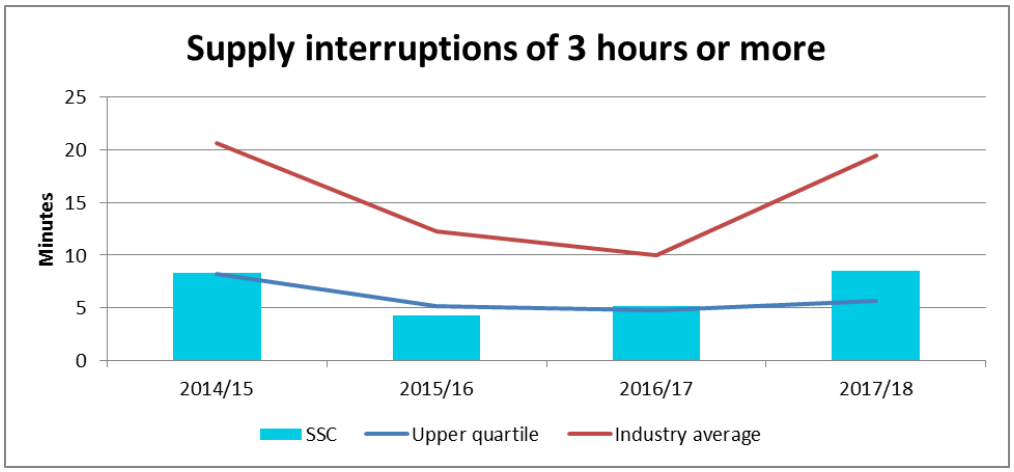
2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
08:18	04:14	05:11	08:32	07:00	07:00	05:30	05:20	05:10	05:00	04:50

We are forecasting achieving 7 minutes in the final two years of this price control. We have then projected a future target which starts at our view of industry upper quartile performance taking into account four years of data and the industry shadow data, with further stretch applied annually.

2. Comparative performance

There is industry comparative data available on Discover Water, and the metric is subject to the shadow reporting to improve consistency across the industry. For the majority of companies, including ourselves, the shadow reporting is consistent with the existing live reporting, although some companies do differ. This is why we have taken a judgement based view of what future performance commitments we believe would achieve a stretching aspiration, starting from where we think upper quartile is currently.

The chart below shows where South Staffs Cambridge is compared to the industry upper quartile and industry average for the last four years. We have consistently been close to the upper quartile level however in the latest year we deteriorated due to some unplanned events. The Beast from the East, and other events throughout the year, caused the industry average to rise substantially in 2017/18 and this demonstrates how volatile this metric can be to external events.



3. Upper quartile projection

The average of the last four years live and shadow values gives an upper quartile of approximately 05:36 which we have rounded down to 05:30 for clarity.

As there is no industry trend that allows a mechanistic forecast, we have taken a view that a continual improvement down to an eventual 04:50 is a stretching performance level. This represents a 12% improvement over the period, which when operating at the upper quartile level is stretching.

It is also important to context this projection with the uncertainty level. Supply interruptions can be volatile to unplanned events, as is demonstrated in 2017/18 where there was a significant upturn for many companies. There is also no deadband proposed, nor any averaging proposed in order to smooth performance over time.

4. Marginal cost of improvement

We have considered what costs drive performance in this metric. As well as how we handle events operationally, the long term maintenance of the network in order to reduce bursts and improve resilience will also have a significant long term effect on our ability to handle events without interrupting customer's supplies.

However, as at PR14, we have experienced an issue with these costs being considerably larger than the willingness to pay value. This does not work in Ofwat's incentive valuation formula. We have documented this issue, which occurs in other measures also, in a separate commentary.

5. Handling uncertainty

Despite this measure displaying some volatility to external events, we are not proposing a deadband nor any averaging. This makes the target more stretching than it otherwise would be.

We are proposing to adopt an underperformance penalty collar on the measure to deal with extremes, at the 95 percentile level which is at 14:36.This is necessary because the 2017/18 performance demonstrated that some companies experienced very high supply interruption values, some due to 'The Beast from East' event but not all. Several companies experienced results in excess of 30 minutes. We do not feel that the incentive mechanism is intended to excessively penalise companies at those extremes, but rather incentivise us to continually improve our service level via elements which are within our control. We have set the collar position well beyond our expected normal service delivery range, and if we were to perform at that level we would

experience a penalty of around £1.25m, depending on year, which on its own would be approximately 0.7% of regulated equity.

6. Customer evidence

Customers have consistently demonstrated that reliability of supply is a high priority in both qualitative and quantitative research, wanting us to go further than our current level of performance. Supply interruptions was:

- Consistently rated as a top 5 priority area in our foundation priorities research and also in our WTP Maxdiff exercise study – it is seen as a core "hygiene factor" by customers;
- Received the second highest willingness to pay (WTP) valuation of the 'reliability of supply' attribute tested in our Wave 1 study, where significant levels of service improvements were shown to household and business customers. WTP valuation levels dropped in Wave 2 study when a lower level of service improvement was shown;

We have also have triangulated our WTP data for unexpected temporary loss of water supply and own data with that of the industry and other studies and information we have. The final triangulated WTP value is £561 per property affected.

Running a regression analysis on our Customer Services tracker 2017/18 data highlights that reducing the number of supply interruptions has a strong positive impact on overall satisfaction with our service. This makes it an important area to deliver service improvements.

Strong support that supply interruptions is a measure in our qualitative Performance Commitment workshops. Received few votes to be at industry leading level of performance, but service improvements were requested. Customers also wanted clarity on the reason for a 3hr interruption time period.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 66% of customers were prepared to pay for an improved level of performance above our current service position for supply interruptions (note that customers were started from a stretch service position). Given this slider had one of the largest bill impacts, this indicates customers value service improvements for reducing supply interruptions.

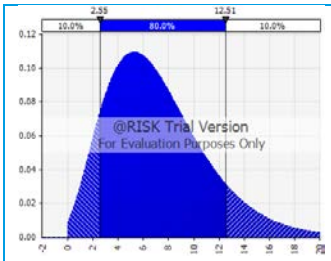
76% of customers (household and business) accepted our proposed 2024/25 target, to reduce the average supply interruption time to 4.50 minutes, in our acceptability testing research. Also, 91% said they understood the description of the measure.

7. Incentive type

Supply interruptions will be a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

Supply interruptions is amongst the metrics that are operating close to the minimum level achievable and close to the hard cap of zero. This means that there is a relatively lower likelihood of outperformance compared to underperformance, especially in this measure which is also subject to volatility risk from uncontrollable events. We have represented this through the following input distribution, which we have used for all years.



The 2017/18 performance across the industry in this measure shows that there is a risk of extreme values for all companies. We expect these extremes (>30 minutes) to be well outside of the P10 level however.

9. Financial incentives

We have used our calculated willingness to pay value and our incremental cost value within Ofwat's formula to determine the incentive rates. The incremental costs are significantly larger than the customer willingness to pay in this case, a problem we also experienced at PR14. It is due to the network maintenance expenditure being naturally large and only affecting a small change on the metric because we are approaching the minimum level achievable and the hard cap of zero.

We have therefore adopted an underperformance incentive that is symmetrical with the outperformance payment, in order to overcome this issue, in the absence of another robust approach.

As with all of our incentives, we have then applied overall scaling factors at the package level. This is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£134k per minute.

The final outperformance payment rate, after scaling, is £269k per minute.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for supply interruptions as we believe the volatility that can be present in this measure would be detrimental to designing an enhanced ODI. The incentive values are naturally sufficiently large to have an observable influence on the overall risk range at the package level, given the volatility that is likely to manifest, randomly, in the metric.

17. Risk of severe restrictions in a drought (D3)

Performance commitment name:	Risk of severe restrictions in a drought (D3)		
Short definition	Percentage of customers at risk of severe supply restrictions in a 1:200 year drought scenario, over 25 years.		
Units	Percentage.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	We will fully adopt the industry consistent methodology for this measure as published on Ofwat's website. We are currently implementing some aspects of this methodology and we plan to be fully compliant by 2020. Each year we provide a 'red amber green' assessment to Ofwat on our level of compliance.		

1. Company trend

2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
81% / 0%	0	0	0	0	0	0	0

This measure was reported for the first time in the 2017/18 shadow reporting. Some elements of the definition were unclear, meaning that we could have either reported 81% or zero. If we deliver our water resources management plan then the correct risk level would be zero. The target is therefore zero, on the basis that we deliver our WRMP.

2. Comparative performance

Some companies reported zero in the submission, others reported a value. It is as yet unclear whether any consistent conclusions can be drawn from the data given the uncertainties around the methodology.

3. Upper quartile projection

As above.

4. Marginal cost of improvement

Not applicable as we are proposing this measure is a non-financial incentive.

5. Handling uncertainty

Not applicable as we are proposing this measure is a non-financial incentive.

6. Customer evidence

In our WRMP and WTP qualitative engagement customers were very clear that they would not

accept any severe restrictions to their water supply. This mirrors the research findings from our neighbours Anglian Water, Severn Trent Water and also CCWater research.

In our Wave 1 willingness to pay research customers gave a relatively low valuation to 'Drought restrictions' compared to other supply attributes, mainly driven by the low levels of occurrence of an event occurring and having no experience to draw on.

We have triangulated our WTP data for 'Drought restrictions' and own data with that of the industry and other studies and information we have. The final triangulated WTP value is £1.15m for every 1% reduction of risk.

Whilst there was support for this measure in our qualitative Performance Commitment workshops, customers found it hard to understand and asked for greater clarity around how risk is calculated. This measure did receive a relatively high number of votes for us to be the top performer in the industry in our Cambridge region.

In both our Performance Commitment workshops and the on-line survey there was an even split as to whether this measure should be reputational or financial.

75% of customers (household and business) accepted our proposed 2024/25 target, no customers affected, in our acceptability testing research. Also, 94% said they understood the description of the measure.

7. Incentive type

Ofwat has indicated in its guidance that, as a new measure, this should be a non-financial measure. It is also only reported twice, at PR19 and at PR24, however we will commit to assessing the metric annually to ensure we are on track.

8. P10/P90 range

Not applicable as we are proposing this measure is a non-financial incentive.

9. Financial incentives

Not applicable as we are proposing this measure is a non-financial incentive.

10. Enhanced incentives

Not applicable as we are proposing this measure is a non-financial incentive.

18. Mains bursts (D4)

Performance commitment name:	Mains bursts (D4)		
Short definition	Number of burst mains per thousand kilometre of main.		
Units	Number per thousand kilometres.		
Use of averaging	No averaging	Three year rolling ✓	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	This performance commitment is for mains bursts across both supply regions, expressed normalised per 1000km of mains. We will fully adopt the industry consistent methodology for supply interruptions reporting as published on Ofwat's website. We are almost fully compliant with the industry consistent methodology. Each year we provide a 'red amber green' assessment to Ofwat on our level of compliance.		

1. Company trend

2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
132	107	120	153	120	120	120	120	120	120	120

This measure experiences volatility primarily due to the weather. We have an ongoing network maintenance programme that aims to achieve stable asset health over a greater than one hundred year time span. There is a significant lag between an increase in network renewal and an underlying change in the burst rate of the network, as an affordable maintenance programme can only renew a small percentage of the network in any one year. We also undertake operational efforts to reduce bursts, in particular through pressure management and 'calm network' operations, which seeks to reduce shocks and surges.

This table shows our current performance and future performance commitment as a three year rolling average:

2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
-	-	120	127	131	131	120	120	120	120	120

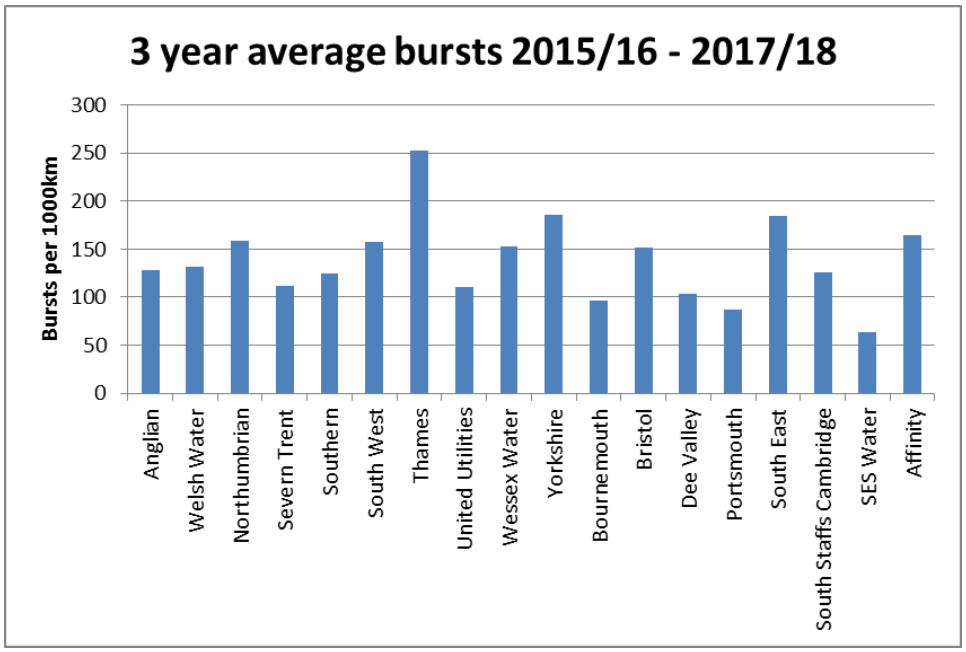
It is the above three year rolling average that forms our performance commitment in the business plan.

2. Comparative performance

There is industry comparative data available on Discover Water. The current industry data is also subject to shadow reporting however we do not expect any significant changes as a result of this.

There is some variation across the industry, which can be due to a number of factors including

legacy position and the local operating environment of the company.



South Staffs Cambridge is better than the industry average performance however not at the industry upper quartile.

3. Upper quartile projection

We have looked at the industry data, which tends to demonstrate the same pattern of volatility across the years as single company data. In other words, cold winters increase burst rates for most companies, which changes the industry average and upper quartile values to similar extents. We have also found that hot dry summers can increase the burst rate this year due to the significant change in the soil moisture deficit. This year's summer dry spell has not been experienced for several years.

The upper quartile over the last five years has ranged between 98 and 123 bursts per thousand kilometre of main. The upper quartile and industry average both deteriorated in 2017/18 due to the impact of the Beast from the East, which was an acute event affecting many companies across the country. In the longer term, we think it is reasonable to assume that the upper quartile will remain broadly in the range indicated above, as a step change in bursts would require sustained increases in network renewals investment over a long period of time, which we don't believe any company to be proposing, for several reasons including affordability issues and because the level of bursts is not necessarily directly related to the reliability of supply – if a company has good network resilience a burst can often be managing with no or limited interruption to customers. The level of network renewal we propose will allow us to maintain asset health at around the current level of performance in a normal year, which over the long term will ensure a serviceable and reliable infrastructure.

4. Marginal cost of improvement

Altering the burst rate of the network over the long term requires sustained mains renewal activity. The annualised cost of this is significantly larger than the willingness to pay value for this metric, meaning that the standard penalty formula does not work.

5. Handling uncertainty

This measure does display weather volatility. As an asset health measure, it is long term deterioration that would indicate a deteriorating asset base, and there is significant lag between changes in our mains renewal programme and bursts due to condition. We propose that a three year average would be suitable for this measure to smooth out the weather volatility. A three year average has been used for leakage for the same reason.

This bursts measure also has a deterioration scenario which is quite likely to occur. In order to reduce leakage we are planning to increase our leak detection activity. Each detected leak also counts as a burst under this metric, and so when we increase our leak detection activity we will also increase the number of bursts we report under this measure.

6. Customer evidence

We have discussed bursts with customers by aligning it to other service levels that customers are aware of, for example leakage, interruptions and traffic disruption.

Customers have consistently demonstrated that reliability of supply is a high priority in both qualitative and quantitative research, wanting us to go further than our current level of performance. Supply interruptions was consistently rated as a top 5 priority area in our foundation priorities research – seen as a core "hygiene factor" by customers.

In our WTP Maxdiff exercise study both supply interruptions and flooding from a burst pipe were rated as key priority areas by customers.

These two attributes received the highest willingness to pay (WTP) valuations of the 'reliability of supply' attribute tested in our Wave 1 study, just behind water pressure, where significant levels of service improvements were shown to household and business customers. Minimising traffic disruption attracted very low WTP valuations across all customers.

WTP valuation levels dropped in Wave 2 study when a lower level of service improvements were shown.

We have also have triangulated our WTP data for our water quality measures and own data with that of the industry and other studies and information we have. The final triangulated WTP values are:

- Flooding from a burst pipe: £1,162 per property affected
- Supply interruptions: £561 per property affected
- Discoloured water: £356 per property affected
- Low pressure: £79 per property affected
- Traffic disruption: £1,845 per roadwork incident

We have then aggregated these WTP valuations to create a value for a burst. This is £42,773 per 1 burst per thousand kilometres of main.

Strong support that main bursts is a measure in our qualitative Performance Commitment workshops. Received few votes to be at industry leading level of performance, but service improvements were requested.

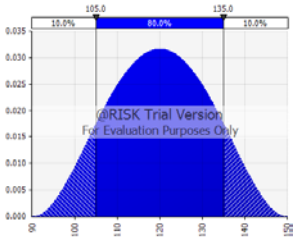
65% of customers (household and business) accepted our proposed 2024/25 mains burst target, 120 bursts per 1,000 km of pipes, in our acceptability testing research. Also, 93% said they understood the description of the measure.

7. Incentive type

Burst mains will be a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

We have considered the potential upside and downside risks on the burst measure in the context of our proposal of a three year average to smooth the annual volatility and ensure the measure is more reflective of a long term trend, which as an asset health measure, is prudent. We consider that whilst there are more downside risks than upside risks, the scale of these is unknown and our operational practices may be able to adapt to mitigate these to some extent. We also continue to undertake a significant mains renewal programme which is designed to maintain stable asset health over the long term. We feel it would not be right that this significant expenditure was presented in the context of a greater downside risk distribution attached to this measure, and therefore have settled on the symmetrical distribution shown below for all years.



9. Financial incentives

We utilised several willingness to pay values in order to construct a valuation for this measure, as we did not directly ask customers about bursts, rather, we had asked them about the consequences that they experience when a burst occurs.

As the incremental costs are significantly larger than the derived willingness to pay value in this case we propose to utilise an underperformance incentive that is symmetrical with the outperformance payment, in the absence of another robust approach.

Finally we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£29k per 1 burst per 1000 km main.

The final outperformance payment rate, after scaling is £58k per 1 burst per 1000 km main.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for mains bursts as we believe the volatility that can be present in this measure would be detrimental to designing an enhanced system. Additionally it is highly unlikely that we can make the step change required to reach frontier performance whilst maintaining an affordable rate of mains renewal.

19. Unplanned outage (D5)

Performance commitment name:	Unplanned outage (D5)		
Short definition	Production capacity lost through unplanned outage.		
Units	% of peak week production capacity.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓	Bespoke	
Long definition	This performance commitment is for unplanned outage across both supply regions, expressed as a percentage of the peak week production capacity. We will fully adopt the industry consistent methodology for supply interruptions reporting as published on Ofwat's website. We still have work to do to be fully compliant with the industry consistent methodology. Each year we provide a 'red amber green' assessment to Ofwat on our level of compliance.		

1. Company trend

2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
1.92%	1.92%	1.92%	1.7%	1.7%	1.7%	1.7%	1.7%

Whilst the means of calculation of this measure is new and we only have a single data point from 2017/18 reporting, the concept of outage has been in place for some time in the water resources management plan process. Although we are still developing our process and moving towards compliance with the industry common methodology, we expect the remaining two years of this period to remain around our current level.

2. Comparative performance

See below.

3. Upper quartile projection

The industry reported this measure on a common footing in the 2017/18 APR for the first time. An initial look at the data puts the upper quartile at 1.7%, and the industry average at about 6%. We are therefore slightly underperforming the upper quartile level currently. We have set our target at the industry upper quartile level. We need to evaluate what business changes we can make that might improve this performance level.

4. Marginal cost of improvement

Maintaining or improvement of this metric is primarily an asset maintenance issue. At the high level, our entire water production capital maintenance programme in each price control period is working towards the aim of maintaining asset health. However the annualised cost of this programme of work is significantly higher than the willingness to pay value we have been able to

derive. We have a made an initial judgement that a 25% increase in capital maintenance would be required to secure a 1% reliability improvement, however this is not robust as we have not considered our maintenance programme in this context previously.

5. Handling uncertainty

This measure is intended to indicate asset health for water production assets (i.e pumping stations and treatment works). It is however not affected by externally driven volatility, so the use of averaging to smooth the trends is not necessary. As we are basing our target on the industry upper quartile level, we also do not consider a deadband necessary.

6. Customer evidence

Customers have consistently put balancing affordable bills against the needs to invest in key assets to ensure we can meet future challenges as a key priority throughout our qualitative foundations and WRMP engagement. This was evidenced by the majority (83%) being supportive of the planned water treatment works upgrades and associated bill impact in our South Staffs region.

However, it was not appropriate to ask about this measure in a willingness to pay survey as the concept is too technical in nature. To generate a willingness to pay value we have made a mapping from our supply interruptions value. This is on the premise that a long term deterioration in the reliability of our water production assets would ultimately create an operational supply demand balance deficit which could see supply interruptions occur at a greater rate, especially during peak supply periods. However this is an extreme scenario, and so we have made a very high level assumption that a 1% risk change could cause a 1% increase in interruptions. This gives a willingness to pay value of £362,349 per 1% of unplanned outage change. Again, we have triangulated our WTP data for our water quality measures and own data with that of the industry and other studies and information we have.

Unplanned outages received an overall positive response for being a measure in our qualitative Performance Commitment workshops. It received a low number of votes for us to be at industry leading or “top 5” levels of performance. Customers found the measure to be clear, but felt it was more something that the company should ensure happens as part of its operations to ensure a reliable, safe supply of water now and in the future.

69% of customers (household and business) accepted our proposed 2024/25 target, unplanned loss of 1%, in our acceptability testing research. Also, 94% said they understood the description of the measure. We reassessed the final target following discussions with our customer panel and further review of a realistic upper quartile performance target.

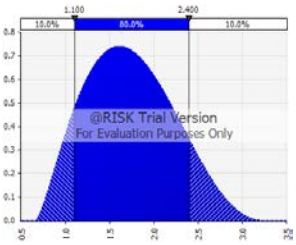
7. Incentive type

We are proposing that this will be a financial incentive, both underperformance penalties and outperformance payments. However the starting level of performance is low and so this does not give much room for outperformance to occur.

8. P10/P90 range

We have considered the potential upside and downside risks on the unplanned outage measure. At the moment the metric is new, and we have not utilised this metric in conjunction with our asset maintenance programme previously. Our compliance with the industry consistent methodology also needs to improve as we develop and embed our reporting process for this measure. The scale of uncertainty is therefore unknown and our operational practices may be able to adapt to mitigate these to some extent.

This measure is amongst those which have a hard cap on performance at zero, and relative to the range we are already very close to this level. For this reason we have selected an input distribution which is slightly more likely to allow deterioration than improvement, reflecting that we may already be approaching a realistic minimum level. We have used the following distribution for all years:



9. Financial incentives

We have used our calculated willingness to pay value and our incremental cost value within Ofwat's formula to determine the incentive rates.

Finally we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£277k per 1%.

The final outperformance payment rate, after scaling is £1.09m per 1%.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for unplanned outage as there is little room for outperformance to occur from the very low starting level, and as a new measure there is uncertainty on compliance across the industry.

20. Customer contact about water quality (D6)

Performance commitment name:	Customer contact about water quality (D6)		
Short definition	The number of customer contacts we get each year about the appearance, taste and odour of water, or perceived illness.		
Units	Number per thousand population.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common ✓**(DWI)**	Bespoke	
Long definition	We engaged with customers on this performance commitment, which we are currently using in AMP6, and received support for continuing to use it in AMP7. This performance commitment is one of the ways we measure asset health, and links closely to our plans to upgrade our two surface water treatment works in the South Staffs region. The definition currently in use, detailed below, originates from the definition published by the DWI and which is the basis of current reporting of customer contact on water quality each calendar year for the DWI 'CIR' return which takes place at approximately the end of January. Companies' performance on this metric, split into appearance and taste and odour contact rates, is also published in the industry 'Discover Water' information dashboard. Our current performance commitment also includes contacts falling into the illness category as historically DWI also included these in its combined acceptability measure. However this category of contact is not published on 'Discover Water'. The contact in the illness category is very small compared to the appearance and taste and odour category. We propose to continue to include all three categories in our measure. We will express the contact in terms of a rate per 1,000 resident population. The resident population we use is the same value that we currently report to the DWI in advance of each calendar year, which is used to define the water quality zones within our areas of supply for the purposes of the annual compliance sampling programme. This is the population estimate that the DWI uses to normalise our contact rates in its annual Chief Inspectors Report and which we currently use in our AMP6 performance commitment. Our current definition follows the original DWI guidance for this measure and so certain exclusions are made as follows: • Contacts related to a reportable event – this is because event contacts were published separately by the DWI and therefore excluded from this measure to prevent double counting.		

- Contacts that are classified as repeat contacts or progress seeking contacts.
- Contacts which are not classified as either appearance or taste and odour.

We have a detailed procedure that call handlers follow in order to classify calls correctly which we audit regularly and will continue to do so.

With changing media channels it is important to define how we will include contact that has originated from a non-traditional route.

- Telephone and written contact will be fully included, as we do now. We expect this to remain by far the bulk of our contact.
- If a contact is made via a social media channel, then this will be included if the customer can be traced, linked to a property that we supply, and can be engaged with to ascertain the full details of the issue. We would not include a social media contact where the customer cannot be identified or otherwise reached for further information.

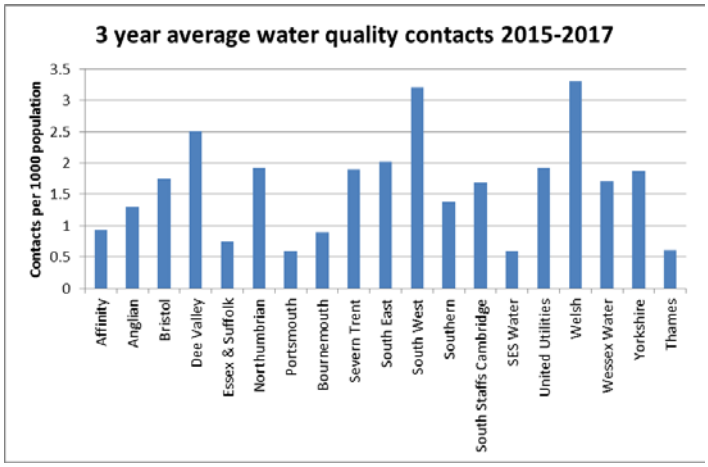
1. Company trend

2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
1.55	1.96	1.67	1.42	1.23	1.23	1.20	1.17	1.14	1	0.8

Since 2016/17 we have delivered around a 15% year on year improvement in this measure, driven by operational process changes, optimised flushing programmes and a focus on 'calm network' when undertaking network activity. We plan to continue to try and deliver operational improvements however in order to deliver a step change to reach upper quartile performance we need to undertake some improvements to our treatment works and embark on a programme of strategic mains cleaning to remove sediments that have built up over decades of operation. We expect the benefits of this transition to materialise in 2023/24 and 2024/25.

2. Comparative performance

There is industry comparative data available on Discover Water, via APR reporting and via DWI annual reports. The chart below shows that there is a wide variation on performance across the industry.



3. Upper quartile projection

We have estimated the current upper quartile to be around 1 contact per thousand population at the present time. There appears to have been a slight improvement trend in the industry over the past three years but this is flattening. It is difficult to predict how this might change in the future, as the metric may not be continued as a performance commitment by all companies and may not therefore have the same level of focus across all companies. However the data will still be published by DWI and on the Discover Water dashboard. We have looked at how we can continue to improve performance in this measure and whilst we are not yet at the upper quartile level, our plans for AMP7 allow us to target that as a performance commitment by 2023/24 and to go beyond it in 2024/25.

4. Marginal cost of improvement

The operational costs of improving the measure are not easily identified because it comprises a range of activity embedded into our every day network operations, such as targeted flushing, improved training and embedding a culture of 'calm network' into all of our operations.

However we are able to cost the step change that will be delivered from the treatment works upgrade and strategic mains cleaning programme. The total annualised cost of this is approximately £1,375,000 per annum. However, this cost is significantly larger than the willingness to pay value for this metric, meaning that the standard penalty formula does not work.

5. Handling uncertainty

This measure has some protection from uncertainty built in, as contact during reportable events is excluded under the DWIs original methodology which we have fully adopted. Therefore we do not consider any deadbands or use of averaging to be necessary. This is consistent with how the performance commitment operates in this current price control.

6. Customer evidence

Customers are supportive of this measure and our large investment in treatment works in our South Staffs region that will deliver the step change in our performance.

Customers have consistently demonstrated that receiving safe, clean water supply is the "number 1" priority in both our qualitative and quantitative engagement.

Water quality measures received some of the highest willingness to pay (WTP) valuations of the 17 attribute tested in our Wave 1 study, where significant levels of service improvements were shown to household and business customers.

WTP valuation levels dropped in Wave 2 study for water not safe to drink and taste and smell attributes when a lower level of service improvement were shown, but there was not a significant drop in valuation for discoloured water among household customers. The valuations went up for discolouration between Wave 1 and Wave 2 for business customers, also highlighting a demand for us to invest to improve the service in this area.

We have also have triangulated our WTP data for our water quality measures and own data with that of the industry and other studies and information we have. The final triangulated WTP values per property affected are:

- Water not safe to drink: £1,664
- Taste and smell of water: £578
- Discoloured water: £356

Running a regression analysis on our Customer Services tracker 2017/18 data highlights that reducing the number of discolouration incidences has a strong positive impact on overall satisfaction with our service. This makes it an important area to deliver service improvements;

Strong support that water quality is a measure in our qualitative Performance Commitment workshops. Received a relatively high number of votes for us to be at "top 5" level of industry performance. Customers stated this was area fundamental to their expectations of as a water supplier and found the measure to be clear.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 69% of customers were prepared to pay for an improved level of performance above our current service position for water quality (note that customers were started from a stretch service position). Given this slider had one of the largest bill impacts, this indicates customers value service improvements.

In our extensive engagement about our Water Treatment Works upgrading works, there was strong support for our plans and the associated bill impact. The informed acceptability among household and business customers was 83%.

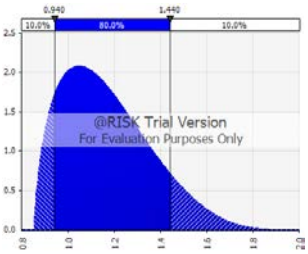
76% of customers (household and business) accepted our proposed 2024/25 water quality target, of a reduction to 0.8 contacts for every 1,000 properties, in our acceptability testing research. Also, 90% said they understood our description of the measure.

7. Incentive type

This will be a financial incentive, both underperformance penalties and outperformance payments.

8. P10/P90 range

Water quality contact is amongst the metrics that are operating close to the minimum level achievable and approaching the hard cap of zero. This means that there is a relatively lower likelihood of outperformance compared to underperformance. We have represented this through the following input distribution, which we have used for all years and which tracks our improving target.



The main risk within this metric is the reliance on both operational improvements and the delivery of the treatment works upgrade and strategic mains cleaning programme to achieve the target level. The target represents a significant step change from our current position, meaning that going beyond it is even more unlikely.

9. Financial incentives

We have used our calculated willingness to pay value and our incremental cost value within Ofwat's formula to determine the incentive rates. The incremental costs are significantly larger than the customer willingness to pay in this case. It is due to the large capital expenditure being required to deliver a step change on this metric, which does not work in Ofwat's formula.

We initially utilised an underperformance incentive that is symmetrical with the outperformance

payment, in order to overcome this issue, in the absence of another robust approach.

However we also found that this incentive and the incentive for compliance risk index was imbalanced at the company level and against the P10/P90 range. We therefore incorporated an adjustment to both this incentive and the CRI incentive to give a more balanced outcome and better align with customer preferences. This means we have reduced the incentive on CRI and lifted the incentive on this water quality contacts measure.

Finally we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£235k per 0.1 contacts per 1000 population.

The final outperformance payment rate, after scaling is £470k per 0.1 contacts per 1000 population.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for this performance commitment. It is unlikely we can make a large enough step change to a frontier position given that the stretch beyond the current upper quartile by year five is driven by the proposed treatment works upgrade.

21. Visible leak repair time (D7)

Performance commitment name:	**Visible leak repair time (D7)**		
Short definition	The time that we take to repair a visible leak on our network, measured from the time the leak is found or reported.		
Units	Percentage completed within a number of days		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under ✓	Under	Non-financial
Methodology used	Industry common	Bespoke ✓	
Long definition	A visible leak is defined as: • A leak that is on our network, i.e. not on customer owned supply pipes or fittings. • Subject to the above, that either: o Has been reported to us by a member of the public (any leak on our network reported by the public is assumed to have been sufficiently visible to be spotted). o Has been found by ourselves that is visible at the surface. We will put in place an audit process to ensure we are correctly classifying leaks. We will measure the time that it takes us to repair and reinstate the leak, starting from the point at which the visible leak was identified until the point at which the leak is repaired. We are proposing to measure this as a percentage complete within a number of days. This means that we will target the vast majority of leaks being repaired within our target time whilst making an allowance for those leaks which are more complex, which may be caused by: • Permitting constraints; • Complications if needing to work alongside other contractors, for example if a leaking pipe is situated next to a gas main; • The need to allow more planning time to ensure customers are not without supply.		

1. Company trend

2020/21	2021/22	2022/23	2023/24	2024/25
90% within 6 days	90% within 5 days	90% within 4 days	90% within 4 days	90% within 4 days

We have not reported this metric in this format before. We do need to undertake some data quality improvements which we will implement by 2020 in order to report this metric. Primarily these relate to how we capture the reported time and job completion time, and how we classify a leak as visible.

We will begin to implement the data quality improvements and examine how we might improve our processes to meet our performance commitment, over the next two years. Due to this uncertainty we have not provided a forecast for the remaining years of AMP6.

Our performance commitment for AMP7 represents a significant step change from where we currently are, and we are also committing to improve further in period in order to continue to drive our performance forward. Whilst current data is uncertain, we are mitigating this considerably by setting such an ambitious target that will provide real improvements for customers.

2. Comparative performance

There is little industry comparative data available. Severn Trent Water has a current performance commitment for fixing 100% of leaks within 24 hours by 2019/20 which they are not achieving.

3. Upper quartile projection

No industry data is available to estimate an upper quartile level.

4. Marginal cost of improvement

As an internal process measure, the costs come from being able to speed up our response time, and having the necessary resources available at the point they are needed, which means there is interaction with our planned maintenance work. Using the volume of work we deliver as a basis, we have broadly estimated that an extra repair gang would allow us to achieve the performance commitment in conjunction with better data and optimised work planning. This is estimated at £135,000 per annum.

5. Handling uncertainty

This is a measure predominantly about our internal process for responding to and fixing reported leaks. Whilst external conditions may hinder repairs in some cases, it would be less transparent to customers to incorporate these caveats in a deadband. Instead of using a deadband we have used a means of measurement (percentage within a number of days) which allows for the bulk of jobs being completed within the target time but which also allows for a small proportion of jobs which are more complex to not affect the overall metric.

We think this is a pragmatic approach as inevitably there will always be some very complex jobs, but the means of measurement means that these won't detract from the overall positive message to the customer that we are aiming to repair the vast majority within our defined timeframe.

6. Customer evidence

Customers have consistently demonstrated that reducing leakage is a high priority in both qualitative and quantitative research, wanting us to go further than our current level of performance.

Improving the speed at which visible leaks are fixed emerged as an important priority in our foundation and WRMP research and also as a top 5 priority in our quantitative priorities survey – reducing leakage overall is seen as a core "hygiene factor" with current performance levels not deemed acceptable. As visible leaks are high profile for customers then this performance commitment will help us demonstrate to customers our performance in a key priority area for them.

Whilst we do not have a direct willingness to pay (WTP) valuation for visible leaks, reducing leakage received the highest willingness to pay (WTP) valuation of any 'environmental' attribute in our Wave 1 study where significant levels of service improvements were shown to household customers, it was ranked slightly lower among business customers. WTP valuation levels dropped in Wave 2 study when a lower level of service improvement was shown.

Running a regression analysis on our Customer Services tracker 2017/18 data shows that improving the speed at which visible leaks are fixed has a strong positive impact on overall satisfaction. This indicates the importance of improving service performance to our customers.

There was strong support that visible leakage is a measure in our qualitative performance commitment workshops, even when customers were told that reducing leakage was also a commitment. This measure received a relatively high number of votes from customers to be in the "top 5" level of industry performance. Customers found the measure easy to understand but wanted re-assurance around how it is calculated. A small number of customers also cited that this performance commitment also provides them the opportunity to be part of the solution as many omitted they do not report leaks to the company when they see them in our customer journey research into the experience of reporting a leak.

When being shown slider bars for 11 of our Performance commitments (along with service levels and a dynamic bill impact to achieve them) in our quantitative on-line survey, 81% of customers were prepared to pay for an improved level of performance above our current service position for visible leaks (note that customers were started from a stretch service position).This indicates customers value service improvements for fixing visible leaks more quickly.

73% of customers (household and business) accepted our proposed 2024/25 target, to reduce the average time taken to repair visible leaks to 6.4 days, in our acceptability testing research. Also, 97% said they understood the description of the measure. We have improved the target in terms of completion time since testing acceptability and built in a % completion target in recognition that not all leaks can be fixed quickly – something some of our customers have sympathised with us on in group discussions.

7. Incentive type

This will be both outperformance and underperformance incentives, on the basis that the measure supports our overall leakage performance and was supported by customers. Incentives will help drive performance and data quality improvements.

8. P10/P90 range

This is another measure that displays an asymmetrical profile, as there is a hard cap which exists at zero yet performance can deteriorate indefinitely. We have again assumed, due to the reducing

target over the period, that there is a relatively lower likelihood of outperformance compared to underperformance. We have represented this through a year by year input distribution which tracks the target position but displays a decreasing likelihood of outperformance as the target becomes more stretching.

The images below show years one to five from left to right:

9. Financial incentives

We did not ask a specific willingness to pay question on this theme, so we have used the willingness to pay value for leakage as a proxy. The conversion from a leakage willingness to pay to the required units for this measure has utilised the average flow rate of a burst, multiplied by the current average run time, in order to estimate a valuation for the change in performance level.

We have then layered on the estimated incremental cost and used this, with the proxied willingness to pay value, in Ofwat's standard incentive formulae.

However when we considered the resultant incentive rates at the package level, the small valuation meant that the measure was having no impact. We felt that the strong customer support we had for this measure meant that we should adjust this value upwards to ensure it was visible in our package at the company level.

The final underperformance penalty rate, after scaling, is -£176k per 1 day change.

The final outperformance payment rate, after scaling, is +£289k per 1 day change.

As with all our outperformance incentives, we will only earn a reward if we go beyond the stretching target we have set ourselves.

10. Enhanced incentives

We are not proposing enhanced incentives for this measure for the following reasons:

- There is no industry comparative data, so the frontier is unknown;
- It is a new measure for us with some data improvements required.

22. Water treatment works delivery programme (D8)

Performance commitment name:	Water treatment works delivery programme (D8)		
Short definition	This measure supports our cost adjustment claim, protecting customers against none and late delivery of our water treatment works upgrade programme and associated expenditure.		
Units	Milestones		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under ✓	Non-financial
Methodology used	Industry common	Bespoke ✓	
Long definition	This is a bespoke measure designed specifically to protect customers in the event of non-delivery or late delivery of our cost adjustment claim schemes. We will undertake to deliver these projects to the delivery date specified on the DWI notices. The projects are: • Hampton Loade treatment works upgrade • Seedy Mill treatment works upgrade • Strategic mains cleaning programme Each of these components has an associated delivery cost, phased across the AMP7 period. For each of the components, if we fail to deliver the project in its entirety, we will give back the capital cost of the project as an RCV adjustment and any associated opex costs as a revenue adjustment. An RCV adjustment is appropriate for the capital cost as this is how the project will have been allowed for in our revenue allowances. For each of the components, if we are late in delivering the project by a year or more from the DWI deadline, we will incur a financial penalty (as a revenue adjustment) comprised of: • The time value of money collected from customers for each year of delay. • Plus, an equal amount to the above to reflect a penalty on the business over and above the time value of money approach.		

1. Company trend

This measure is specifically designed to support the cost adjustment claim schemes and is milestone based.

2. Comparative performance

Not applicable.

3. Upper quartile projection

Not applicable.

4. Marginal cost of improvement

Not applicable.

5. Handling uncertainty

The measure itself is designed to protect customers against non-delivery or late delivery of scheme. Therefore it would not be appropriate to specify deadbands.

6. Customer evidence

In our extensive engagement about our Water Treatment Works upgrading works, there was strong support for our plans and the associated bill impact, with informed acceptability among household and business customers being 83%.

The majority of customers (58%) wanted an On-time and In-full approach to measuring our works programme to ensure they are fully protected from any non-delivery.

At the deliberative groups customers voted on when a late delivery penalty should be applied, with 44% saying it should be within 6 months of the original completion date. In the quantitative survey there were mixed views about when a penalty for late delivery would kick in, with a slight majority saying it should be within 6 months of the original completion date.

In our acceptability testing research, 87% of customers (household and business) accepted our proposed (on time and in full) milestone approach as a trigger for any compensation. Also, 95% said they understood the description of the measure.

7. Incentive type

This incentive is specifically designed to accompany the cost adjustment claim. Is in an underperformance penalty only comprised of both an RCV adjustment component for non-delivery and a revenue adjustment component for late delivery.

8. P10/P90 range

This measure is different from the others in our package in that it is specifically designed to complement the cost adjustment claim schemes. We are planning on delivering the schemes in plan in full, and to the deadlines specified on the DWI notices. We have therefore elected not to include this measure in our P10 range, on the basis that we fully commit to delivering our proposals. This means that this measure is not contributing to the company level P10 range specified in our business plan.

9. Financial incentives

Scheme		
	Fail to deliver	**Late delivery rate**
Seedy Mill	£31.4m RCV adjustment	£254k per year delay
	£1m revenue adjustment	
Hampton Loade	£25.6m RCV adjustment	£282k per year delay
	£2m revenue adjustment	
Mains cleaning	£1m RCV adjustment	£204k per year delay
	£3 revenue adjustment	

The incentives above reflect:

- Full refund of the capital costs and operational costs of our claim value if we do not deliver the scheme.
- A late delivery payment which is twice the time value of the revenue we would have collected from customers up until the scheme delivery deadline, for each year that the project is delayed.

10. Enhanced incentives

As a protection for customers for our cost adjustment claim delivery, it would not be appropriate to assign an enhanced incentive for this metric.

23. Bad debt level (E1)

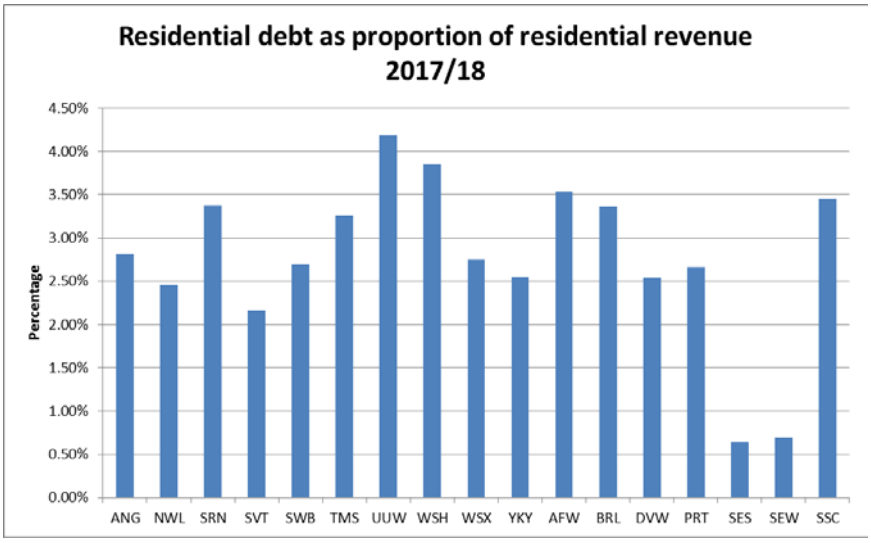
Performance commitment name:	Bad debt level (E1)		
Short definition	The level of residential bad debt charge that we incur each year, expressed as percentage of total residential revenue.		
Units	Percentage.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	We currently report the bad debt charge in our Annual Performance Report in July each year. We will also now report, as a performance commitment, the level of bad debt charge expressed as a proportion of total revenue. In the current published APR, this is the doubtful debt value in table 2C, divided by the total residential revenue in table 2F.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
2.29%	3.48%	3.45%	3.47%	3.39%	3.21%	3.06%	2.99%	2.96%	2.95%

2. Comparative performance

Our debt measure can be derived from the published APR. The chart below shows the 2017/18 comparative position, however the debt situation varies across companies for legitimate reasons arising from different demographics of the customers that each company supplies. Ofwat's retail cost modelling will likely attempt to take these demographics into account.



3. Upper quartile projection

Within the 2017/18 data the industry upper quartile is 2.5%. However as above, this is not directly comparable across companies because of differing demographics across the UK. Our target for debt takes account of the demographics of our supply regions.

4. Marginal cost of improvement

Not applicable as we are proposing this measure is a non-financial incentive.

5. Handling uncertainty

Not applicable as we are proposing this measure is a non-financial incentive.

6. Customer evidence

One of our customers' main priorities is to ensure we have fair and affordable bills and this was reflected in our foundation priorities research and in subsequent studies.

We do not have a customer willingness to pay for this measure, as it would not be appropriate to engage with customers on this measure using this approach.

Whilst there was some support for this measure in our qualitative Performance Commitment workshops among customers, this measure attracted a relatively high number of votes (although still low in number) to be dropped as a Performance Commitment. Customers almost universally agreed that this measure as an internal one about being an efficient business, rather than a service measure that had a big impact on them. However, given the strength of customer support for fair bills, it is an important measure to retain and Ofwat require it as a measure.

66% of customers (household and business) accepted our proposed 2024/25 target, to reduce our bad debt level to 2.95%, in our acceptability testing research. Also, 96% said they understood the description of the measure.

7. Incentive type

This measure will be non-financial because:

- An efficient level of bad debt and debt management costs will be allowed for by Ofwat via the retail cost allowance.
- Not achieving this would automatically mean that we have to subsidise the price control, bearing in mind that incentives on other service areas mean customers are still protected from wider under delivery as a result of this.
- Over achieving this would automatically mean that the business can keep the outperformance saving as a reward for the duration of the price control.

8. P10/P90 range

Not applicable as we are proposing this measure is a non-financial incentive.

9. Financial incentives

Not applicable as we are proposing this measure is a non-financial incentive.

10. Enhanced incentives

Not applicable as we are proposing this measure is a non-financial incentive.

24. Residential void properties and gap sites (E2)

Performance commitment name:	Residential void properties and gap sites (E2)		
Short definition	The proportion of residential voids we have validated each year, along with the completion of our gap site identification activity.		
Units	Percentage.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under ✓	Non-financial
Methodology used	Industry common	Bespoke ✓	
Long definition	Void properties are properties that we have registered on our billing systems but which are not billed because we believe them to be unoccupied. Gap sites are properties that we do not have registered on our billing system, because we were not aware of the property being built or connected to our supply network. It is important that we undertake validation on the properties we believe to be void, because it is unfair to those customers who do pay if there are void properties that are occupied and should be charged. Similarly, it is important we undertake specialist activity to identify gap sites for the same reason. The processes for validating voids and identifying gap sites are closely integrated, and therefore we propose a single performance commitment, which would work as follows. We propose to utilise third party data validation annually (Q1) to identify gap sites and commit to complete the verification of these sites by the end of Q3. Therefore within a given financial year a gap site will be identified and either moved into charge (commencing from its occupation date) or flagged as a void property, feeding into the void process. For void property management we will utilise credit reference validation coupled with an ongoing field and desk-based process to ensure that each void property is validated not less than annually and, either marked as a void again or brought into charge. There are good reasons why different companies will have different levels of voids, and the important factor for customer fairness is that the records we hold are as accurate as possible, achieved through the validation activity. The performance commitment will therefore measure the proportion of our registered voids that we validate each year. We will continue to report the absolute level of voids in our annual performance report, which enables industry comparisons to be made. For business customers that are part of the business retail market, we are proposing to introduce a void and gap site incentive which is already provided for in the market codes.		

1. Company trend

2020/21	2021/22	2022/23	2023/24	2024/25
100%	100%	100%	100%	100%

We are proposing a validation measure for our voids and gap sites, comprising desk and field activity with external data sharing. We are proposing that this is residential only since we will incentivise business retailers to improve voids and gap sites via the market code incentives.

2. Comparative performance

Information is published by companies in their annual returns on void levels. We are currently around the industry average level. PWC undertook some analysis on behalf of Ofwat that suggested water voids could be improved further by more effective management, and that is what our proposed performance commitment incentivises.

3. Upper quartile projection

As our proposal is for a performance commitment measuring the validation activity we undertake, it is not relevant to look at the industry upper quartile level. The level of voids across companies may vary for genuine reasons or it could be as a result of insufficient validation. We therefore need to address the validation aspect, which is entirely within management control, in order to obtain an accurate picture of the genuine level of voids that we have.

4. Marginal cost of improvement

We have costed our void identification programme at £131k over AMP7, this is included in our retail costs. This delivers the 100% void validation activity, hence a unit rate of £1.3k per percentage point.

5. Handling uncertainty

As this is a process compliance measure it is entirely within management control and it would not be appropriate to have a deadband or to use averaging.

6. Customer evidence

One of our customers' main priorities is to ensure we have fair and affordable bills and this was reflected in our foundation priorities research and in subsequent studies.

We do not have a customer willingness to pay for this measure, as it would not be appropriate to engage with customers on this topic using this approach, or expect them to be willing to pay for a potential data quality issue that is within our control.

Whilst there was some support for this measure in our qualitative Performance Commitment workshops, customers found it hard to understand why gap sites and voids existed. This measure attracted a relatively high number of votes (although still low in number) to be dropped as a Performance Commitment, as customers almost universally agreed that this measure as an internal one about being an efficient business rather than a service measure that had a big impact on them. However, given the strength of customer support for fair bills, it is an important measure to retain and Ofwat require it as a measure.

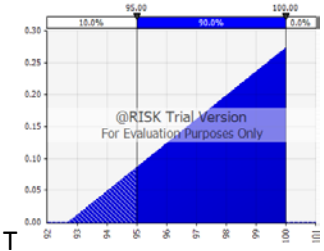
73% of customers (household and business) accepted our proposed 2024/25 target, to check 100% of properties for gaps/voids, in our acceptability testing research. Also, 92% said they understood the description of the measure.

7. Incentive type

We are proposing this as an underperformance penalty only, as it is a data quality and customer fairness issue for us to ensure that our data is reliable.

8. P10/P90 range

As a data quality and process compliance measure, it is within our control to deliver this target. We have allowed for a small downside risk of underdelivery of 5% within the P10 range.



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9. Financial incentives

As it is not appropriate to derive a customer willingness to pay for this, the penalty needs to be based on an alternative incremental benefit value. We have calculated an indicative bill saving per customer if our process finds 25% of voids are errors, which we think is a reasonable assumption based on our short trials to date. Note that our validation activity will be thorough, but if the property is genuinely void then there is no customer benefit. We have used this value and our incremental cost value in Ofwat's formula to derive the incentive.

Finally we have applied overall scaling factors at the package level. This is common across all financially incentivised metrics and therefore is covered in further detail in a separate commentary document where we have discussed these top down factors.

The final underperformance penalty rate, after scaling, is -£10.8k per percentage point.

10. Enhanced incentives

This metric is not suitable for enhanced incentives, as it is a penalty only measure based on a data quality process.

25. Employee engagement (E3)

Performance commitment name:	Employee engagement (E3)		
Short definition	A measure which can encompass a broad range of employee engagement themes and give the business valuable insight into its employees to help their satisfaction, development and ultimately contribute to improving productivity and service levels.		
Units	Net promoter score and achievement of Investors in People.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	For a number of years we have operated employee satisfaction and engagement surveys. During our customer engagement we found that customers closely associated the satisfaction of our employees with the service levels they receive and expressed support for transparency of this kind of metric. Our existing metrics are internally developed and so we think that for this to work well as a performance commitment we would need to look at developing a metric which is more aligned with external best practice and able to be benchmarked. Following evaluation of a number of options we have decided to adopt two processes into our business. Firstly, we will attain the Investors in People accreditation by the end of 2021/22, which is an accreditation we used to hold in the early 2000's. Secondly we will adopt a net promoter score approach to an employee survey which we will be able to externally benchmark with similar processes in other sectors.		

1. Company trend

2020/21	2021/22	2022/23	2023/24	2024/25
+10 NPS +IIP	+10 NPS	+10 NPS	+10 NPS	+10 NPS

As this is a newly proposed metric, we have no historic data to present. Our future target is to achieve a +10 net promoter score and to deliver Investors In People accreditation by year 2 of the price control period.

2. Comparative performance

We do not have any comparative data on employee engagement at this time. Our net promoter score approach and adoption of the recognised Investors in People accreditation should mean we are able to benchmark ourselves with other companies/sectors in future.

3. Upper quartile projection
As above.
4. Marginal cost of improvement
Not applicable as we are proposing this measure is a non-financial incentive.
5. Handling uncertainty
Not applicable as we are proposing this measure is a non-financial incentive.
6. Customer evidence
We do not have a customer willingness to pay for this measure, as it would not be appropriate to engage with customers on this measure using this approach. Whilst there was good support for this measure in our qualitative Performance Commitment workshops customers, this measure attracted a relatively high number of votes to be dropped (although still low in number) as a Performance Commitment. Customers also made spontaneous the link that happy, engaged staff are more likely to offer them great service. They found the measure easy to understand. In both our Performance Commitment workshops and the on-line survey there was strong support for this measure to be reputational. 65% of customers (household and business) accepted our proposed 2024/25 target to achieve IIP accreditation in our acceptability testing research. Also, 95% said they understood the description of the measure.
7. Incentive type
This measure will be non-financial, as it would not be appropriate to financially incentivise an internal employee metric. Many of the customer facing service levels, which employee satisfaction can influence, are financially incentivised.
8. P10/P90 range
Not applicable as we are proposing this measure is a non-financial incentive.
9. Financial incentives
Not applicable as we are proposing this measure is a non-financial incentive.
10. Enhanced incentives
Not applicable as we are proposing this measure is a non-financial incentive.

26. Treating our suppliers fairly (E4)

Performance commitment name:	**Treating our suppliers fairly (E4)**		
Short definition	Complying with the Department for Business, Energy and Industrial strategy prompt payment code.		
Units	Percentage of small businesses (<£6.5m turnover) that we pay within 30 days.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	We want to treat our supply chain fairly and we recognise how important cash flow is to the businesses that service us. Small business are especially reliant on fair treatment and fast payment from us for services they have delivered, and we want to encourage small businesses to work with us by ensuring we treat them fairly and pay them promptly. The prompt payment code sets standards for payment practices and best practice and is administered by the Chartered Institute of Credit Management. Compliance with the principles of the code is monitored and enforced by the prompt payment code compliance board. The code covers prompt payment (within 60 days, working towards 30 days as the norm), as well as wider payment procedures. As a code signatory, we would commit to: • Pay suppliers on time o within the terms agreed at the outset of the contract o without attempting to change payment terms retrospectively o without changing practice on length of payment for smaller companies on unreasonable grounds • Give clear guidance to suppliers o providing suppliers with clear and easily accessible guidance on payment procedures o ensuring there is a system for dealing with complaints and disputes which is communicated to suppliers o advising them promptly if there is any reason why an invoice will not be paid to the agreed terms • Encourage good practice o by requesting that lead suppliers encourage adoption of the code throughout their own supply chains.		

	In addition to signing up to the code, we will also measure the percentage of small businesses (<£6.5m turnover) that we pay within 30 days.

1. Company trend

2020/21	2021/22	2022/23	2023/24	2024/25
100%	100%	100%	100%	100%

We currently pay all of our suppliers on the same 60 day payment terms, regardless of scale. Our current performance is an average of 51 days.

We are not currently part of the prompt payment code but we are planning to undertake this prior by 2019/20.

2. Comparative performance

We do not have any industry data on this theme.

3. Upper quartile projection

As above.

4. Marginal cost of improvement

Not applicable as we are proposing this measure is a non-financial incentive.

5. Handling uncertainty

Not applicable as we are proposing this measure is a non-financial incentive.

6. Customer evidence

We do not have a customer willingness to pay for this measure, as it would not be appropriate to engage with customers on this measure using this approach.

There was strong support for this measure in our qualitative Performance Commitment workshops, with customers recognising the importance of treating small business fairly. A view fully supported by all the business customers who took part. The measure was seen as easy to understand and appropriate to ensure high service standards are delivered and

In both our Performance Commitment workshops and the on-line survey there was slight majority support for this measure to be reputational.

71% of customers (household and business) accepted our proposed 2024/25 target, paying 100% of smaller suppliers in full within 30 days, in our acceptability testing research. Also, 90% said they understood the description of the measure.

7. Incentive type

This will be a non-financial measure because whilst customers and businesses support the principle, it is something that is difficult to calculate the benefit.

8. P10/P90 range

Not applicable as we are proposing this measure is a non-financial incentive.

9. Financial incentives
Not applicable as we are proposing this measure is a non-financial incentive.
10. Enhanced incentives
Not applicable as we are proposing this measure is a non-financial incentive.

27. Trust (F1)

Performance commitment name:	Trust (F1)		
Short definition	The level of trust that our customers have in us.		
Units	Score out of 10.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	We currently measure trust through a quarterly tracker survey. During our customer engagement we found strong support from customers for a performance commitment on trust. However our current measure is of our own design and we think that it would work best as a performance commitment if there were a more comparable measure at the industry level that we could use. We note for example that Consumer Council for Water have a trust measure that they report annually, which could form the basis of a comparable industry measure. The CCWater survey is conducted annually however, so could be subject to some timing volatility compared to our own quarterly tracker. We have decided to combine our own quarterly survey with CCWater's annual survey result to form a combined measure of trust. We have already aligned our scoring system with that which CCWater use in their survey (a 1 to 10 score). Each of the two surveys will contribute 50% of the weight to our final reported value.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
8.03	7.73	7.96	8.00	8.05	8.10	8.15	8.20	8.25	8.30

The historical figures shown above are back calculated from a combination of our own tracker and CCWater's annual survey.

2. Comparative performance

Comparative data for the water industry is available from the Consumer Council for Water who conduct annual surveys of customers across England and Wales. Trust scores across years are very consistent and we are above average performance compared to other water companies. There is also a trust metric published by UKCSI which covers a wide range of industries including utilities. Whilst we do not participate in UKCSI, the all organisation score for trust is very close to the average for the water industry. Our targets stretch us towards the level of the top ten companies.

3. Upper quartile projection
We have not projected an upper quartile for this metric.
4. Marginal cost of improvement
Not applicable as we are proposing this measure is a non-financial incentive.
5. Handling uncertainty
Not applicable as we are proposing this measure is a non-financial incentive.
6. Customer evidence
Throughout all our qualitative research customers have told us that they need to be able to trust us to deliver a reliable service. This is mainly because of how critical water is for both homes and businesses and the lack of choice in which supplier they can use. We do not have a customer willingness to pay for this measure, as it would not be appropriate to engage with customers on this measure using this approach. There was support for this measure in our qualitative Performance Commitment workshops, but did not attract many votes for being an area where customers expected us to be industry leading. Customers found the measure to be easy to understand. In both our Performance Commitment workshops and the on-line survey there was strong support for this measure to be reputational. 75% of customers (household and business) accepted our proposed 2024/25 target, 90% agreement, in our acceptability testing research. Also, 94% said they understood the description of the measure. We have since refined our approach to adopt a 1-10 scale to mirror industry benchmark approach. This will provide a better measure for customers and stakeholders.
7. Incentive type
This measure will be non-financial because it is asking customers to make a judgement on trust given our wide range of service levels (some of which are incentivised in their own right), and our general reputation.
8. P10/P90 range
Not applicable as we are proposing this measure is a non-financial incentive.
9. Financial incentives
Not applicable as we are proposing this measure is a non-financial incentive.
10. Enhanced incentives
Not applicable as we are proposing this measure is a non-financial incentive.

28. Value for money (F2)

Performance commitment name:	Value for money (F2)		
Short definition	The proportion of customers satisfied that we offer a value for money service.		
Units	Percentage.		
Use of averaging	No averaging ✓	Three year rolling	
Form of incentive	Out&Under	Under	Non-financial ✓
Methodology used	Industry common	Bespoke ✓	
Long definition	We currently measure value for money through a quarterly tracker survey which is combined with an affordability score and reported as a performance commitment in this price control. During our customer engagement we found strong support from customers to continue with this performance commitment. However our current measure is of our own design and we think that it would work best as a performance commitment if there were a more comparable measure at the industry level that we could use. We note for example that Consumer Council for Water have a value for money measure that they report annually, which could form the basis of a comparable industry measure. The CCWater survey is conducted annually however, so could be subject to some timing volatility compared to our own quarterly tracker. We have decided to combine our own quarterly survey with CCWater's annual survey result to form a combined measure of value for money. Our scoring system is already aligned with that which CCWater use in their survey (a percentage score). Each of the two surveys will contribute 50% of the weight to our final reported value.		

1. Company trend

2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
78%	71%	72%	73%	75%	77%	79%	81%	83%	85%

The historical figures shown above are back calculated from a combination of our own tracker and CCWater's annual survey.

2. Comparative performance

Comparative data for the water industry is available from the Consumer Council for Water who conduct annual surveys of customers across England and Wales. Value for money scores across years are more variable than those for trust and we are above average performance compared to

other water companies.

3. Upper quartile projection

We have not forecast an upper quartile for this metric.

4. Marginal cost of improvement

Not applicable as we are proposing this measure is a non-financial incentive.

5. Handling uncertainty

Not applicable as we are proposing this measure is a non-financial incentive.

6. Customer evidence

Throughout all our qualitative research customers have told us that they expect a reliable service that is affordable and represents good value for money. They expect this particularly given how critical water is and the lack of choice they have of supplier.

We do not have a customer willingness to pay for this measure, as it would not be appropriate to engage with customers on this measure using this approach.

There was strong support for this measure in our qualitative Performance Commitment workshops, and it attracted a high number of votes for us industry leading, particularly in our South Staffs region. Customers found the measure to be easy to understand.

In both our Performance Commitment workshops and the on-line survey there was an even split as to whether this measure should be reputational or financial.

75% of customers (household and business) accepted our proposed 2024/25 target, 85% agreement, in our acceptability testing research. Also, 92% said they understood the description of the measure.

7. Incentive type

This measure will be non-financial because it is asking customers to make a judgement on our value for money given our wide range of service levels (some of which are incentivised in their own right) and our bill level – which will have been agreed with Ofwat in their final determination of our business plan.

8. P10/P90 range

Not applicable as we are proposing this measure is a non-financial incentive.

9. Financial incentives

Not applicable as we are proposing this measure is a non-financial incentive.

10. Enhanced incentives

Not applicable as we are proposing this measure is a non-financial incentive.

Getting to the final proposed incentive package – the journey

This section explores the scenarios we considered and the journey we have been on for our incentive valuation and the adjustments we have made to our package to ensure it offers a balanced risk profile for the business and reflects customer priorities appropriately. We have provided some back ground detail on the challenges we faced in valuing our package following this discussion on results.

Willingness to pay data

We started with willingness to pay data from our surveys. We attempted to transform the WTP data into the required format for the performance commitment, which was not possible for all measures.

Incremental costs

We attempted to estimate incremental costs for all performance commitments through a combination of our totex plans for AMP7, our historical costs and judgements. This was not possible for all measures.

Natural valuation

Our best estimates of WTP and costs were converted to incentive rates using Ofwat's formula where we could. These incentive rates were incorporated into our Monte Carlo model which contained our performance commitment levels and our likely risk ranges (P10/P90). The detail behind these assumptions for each measure is contained within the above templates.

Our first pass resulted in the following output:

		2020-21	2021-22	2022-23	2023-24	2024-25	Average
% of RoRE	10%	-1.2%	-1.1%	-1.1%	-1.0%	-1.0%	-1.1%
% of RoRE	50%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
% of RoRE	90%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%

PC name	2020-21	2021-22	2022-23	2023-24	2024-25	2020-21	2021-22	2022-23	2023-24	2024-25
Financial support	-0.03	-0.03	-0.03	-0.03	-0.03	0.00	0.00	0.00	0.00	0.00
Extra Care assistance	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00
Leakage South Staffs region	-0.09	-0.10	-0.12	-0.16	-0.21	0.13	0.13	0.14	0.14	0.14
Leakage Cambridge region	-0.07	-0.07	-0.10	-0.13	-0.17	0.10	0.10	0.10	0.10	0.10
Residential water consumption SST	-0.10	-0.10	-0.10	-0.10	-0.10	0.03	0.03	0.03	0.03	0.03
Environmentally sensitive water abstraction	-0.05	-0.05	-0.05	-0.05	-0.05	0.02	0.02	0.02	0.02	0.02
Protecting wildlife, plants, habitats and catchments	-0.06	-0.06	-0.06	-0.06	-0.06	0.03	0.03	0.03	0.03	0.03
Compliance risk index	-1.40	-1.40	-1.40	-1.40	-1.40	0.00	0.00	0.00	0.00	0.00
Supply interruptions	-0.63	-0.65	-0.67	-0.69	-0.72	0.27	0.25	0.24	0.23	0.21
Mains bursts	-0.29	-0.29	-0.29	-0.29	-0.29	0.29	0.29	0.29	0.29	0.29
Unplanned outage	-0.13	-0.13	-0.13	-0.13	-0.13	0.22	0.25	0.25	0.25	0.25
Customer contact about water quality	-0.12	-0.12	-0.12	-0.12	-0.12	0.08	0.08	0.08	0.08	0.08
Visible leak repair time	-0.02	-0.02	-0.02	-0.02	-0.02	0.02	0.01	0.01	0.01	0.01
Residential void properties and gap sites	-0.18	-0.14	-0.11	-0.07	-0.04	0.00	0.00	0.00	0.00	0.00
Residential water consumption CAM	-0.10	-0.10	-0.10	-0.10	-0.10	0.03	0.03	0.03	0.03	0.03

We observed at this stage that the CRI incentive was dominating the package, and that the incentive rates as they naturally fell were therefore unbalanced towards this measure, but also that they were insufficient to give any P90 outperformance incentive. This is due to the stretch in the package, which means that for many measures which are outperformance incentivised, the targets are sufficiently stretching as to make outperformance unlikely.

Package balance

The above results demonstrated we needed to consider the package balance. We examined our WTP and incremental costs data and were able to make some adjustments to improve the transformations and cost estimates but these were marginal and did not make any difference at the package level. We also challenged the P10 and P90 assumptions used in the Monte Carlo analysis but on extensive examination we found these to be a fair reflection of the likely range of performance, and small changes were not influencing the results at the package level.

We found that the only way to alter the package balance would be to adjust incentive rates outside of the boundaries of our own WTP data. We made the following changes:

- We looked at the industry data for leakage, which at the normalised level was around three times higher than our own data. We therefore lifted leakage incentive rates, for both penalty and reward, by three times.
- We looked at the balance between PCC and leakage. We found that our customer research demonstrated that leakage should have the greater weight of incentive than PCC. We also found that our two regions were unbalanced on PCC. We made a top down adjustment to shift the balance of incentive onto leakage to better reflect the customer's preferences. We based the swing on the numerical bias towards leakage that was displayed in our WTP research.
- We also looked at our visible leak repair measure, which naturally had arrived at a very low valuation. We had strong support for this measure from customers but no data which could naturally define a scaling factor. We therefore scaled both penalty and reward values by a factor of ten.
- We looked at the CRI incentive. We had tried numerous methods of valuing CRI, none of which output a useable incentive rate. We therefore looked at the balance of incentive

between our two water quality measures, customer contact and CRI. We looked at the balance of WTP expressed by customers between aesthetics and compliance and made a top down balancing adjustment to move the weight of incentive onto our contact measure.

These changes made a significant improvement to the balance of our package on the penalty side, as follows:

		2020-21	2021-22	2022-23	2023-24	2024-25	
% of RoRE	10%	-0.9%	-0.8%	-0.8%	-0.9%	-0.9%	-0.9%
% of RoRE	50%	-0.3%	-0.3%	-0.3%	-0.4%	-0.4%	-0.3%
% of RoRE	90%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%

PC name	2020-21	2021-22	2022-23	2023-24	2024-25	2020-21	2021-22	2022-23	2023-24	2024-25
Financial support	-0.03	-0.03	-0.03	-0.03	-0.03	0.00	0.00	0.00	0.00	0.00
Extra Care assistance	-0.01	-0.01	-0.01	-0.01	-0.01	0.00	0.00	0.00	0.00	0.00
Leakage South Staffs region	-0.26	-0.30	-0.37	-0.48	-0.62	0.39	0.40	0.41	0.42	0.43
Leakage Cambridge region	-0.21	-0.21	-0.30	-0.39	-0.50	0.29	0.29	0.30	0.31	0.31
Residential water consumption SST	-0.10	-0.10	-0.10	-0.10	-0.10	0.03	0.03	0.03	0.03	0.03
Environmentally sensitive water abstraction	-0.05	-0.05	-0.05	-0.05	-0.05	0.02	0.02	0.02	0.02	0.02
Protecting wildlife, plants, habitats and catchments	-0.06	-0.06	-0.06	-0.06	-0.06	0.03	0.03	0.03	0.03	0.03
Compliance risk index	-0.45	-0.45	-0.45	-0.45	-0.45	0.00	0.00	0.00	0.00	0.00
Supply interruptions	-0.63	-0.65	-0.67	-0.69	-0.72	0.27	0.26	0.24	0.23	0.21
Mains bursts	-0.29	-0.29	-0.29	-0.29	-0.29	0.29	0.29	0.29	0.29	0.29
Unplanned outage	-0.13	-0.13	-0.13	-0.13	-0.13	0.22	0.25	0.25	0.25	0.25
Customer contact about water quality	-0.47	-0.47	-0.47	-0.47	-0.47	0.31	0.31	0.31	0.31	0.31
Visible leak repair time	-0.23	-0.23	-0.22	-0.22	-0.22	0.15	0.13	0.10	0.10	0.10
Residential void properties and gap sites	-0.18	-0.14	-0.11	-0.07	-0.04	0.00	0.00	0.00	0.00	0.00
Residential water consumption CAM	-0.10	-0.10	-0.10	-0.10	-0.10	0.03	0.03	0.03	0.03	0.03

We considered that the balance between measures was now much more proportional and better reflected customer priorities.

However due to the likelihood of reaching outperformance levels for the performance commitments, we were still unable to reach the Ofwat guidance range on the package.

We considered whether some more of our performance commitments could be financially incentivised however when we reviewed our package we were satisfied that our rationale for our selection of reputational and financial was robust. We would not want to force an incentive to be financial if the measure it was attached to was not suited to it for justifiable reasons, as this could be detrimental to customers' interests.

Package scaling

Fundamentally there is asymmetry in the performance commitments driven by very stretching targets. This makes it less likely to be able to outperform, given that in order to reach the performance commitment targets we have set we need to make considerable step changes in performance. We are much less likely to be able to go beyond those levels as we are to not achieve them.

In order to address this asymmetry we need to deliberately insert asymmetry into the incentive rates, such that the low likelihood of achieving outperformance levels is offset by higher outperformance payment rates if it should occur.

Unfortunately, this top down adjustment means that we have to select what multipliers to use, and what percentage of regulated equity we want to target. We have therefore looked at three options.

Option 1 – achieving 1% of RE on the reward side, but keeping symmetrical rates.

We looked at what level of scaling would be needed to achieve at least the lower end of Ofwat's range, but in maintaining symmetrical scaling factors. The skew caused by the stretching targets means that this gives a penalty position far outside of Ofwat's range. Because of the high scaling factors used, it also causes an imbalanced mid range, where we would expect to incur significant penalties, even if we delivered most of the targets, due to the high scaling factor applying to penalty rates.

		2020-21	2021-22	2022-23	2023-24	2024-25	Average
% of RoRE	10%	-6.9%	-6.6%	-6.8%	-6.8%	-7.1%	-6.8%
% of RoRE	50%	-2.6%	-2.5%	-2.7%	-2.9%	-3.2%	-2.8%
% of RoRE	90%	1.3%	1.3%	1.1%	0.9%	0.7%	1.1%

Requires scaling factors:
Penalties x8
Rewards x8

Option 2 – constraining at 3% on the penalty side, whilst keeping symmetrical rates.

We looked at what scaling factors would achieve a 3% penalty side position and what this would deliver on the reward side. As expected this does not achieve 1% on rewards and is therefore still imbalanced. Symmetrical rates, no matter how high they go, cannot offset the skew in the risk distributions arising from the stretching targets.

		2020-21	2021-22	2022-23	2023-24	2024-25	Average
% of RoRE	10%	-3.1%	-2.9%	-2.9%	-3.0%	-3.1%	-3.0%
% of RoRE	50%	-1.1%	-1.1%	-1.2%	-1.3%	-1.4%	-1.2%
% of RoRE	90%	0.6%	0.6%	0.5%	0.4%	0.3%	0.5%

Requires scaling factors:
Penalties x3.5
Rewards x3.5

Option 3 – non-symmetrical scaling factors

As expected the only way to achieve a P10/P90 position which is balanced is to combat the underlying skew in the risk profiles, by raising the outperformance rates by more than the underperformance rates. This can achieve a +/- 1% package.

		2020-21	2021-22	2022-23	2023-24	2024-25	Average
% of RoRE	10%	-1.0%	-1.0%	-1.0%	-1.1%	-1.2%	-1.1%
% of RoRE	50%	0.1%	0.0%	0.0%	0.1%	0.2%	0.0%
% of RoRE	90%	1.2%	1.1%	1.0%	0.9%	0.8%	1.0%

Scaling factors:
Penalties x1.5
Rewards x3.0

We are concerned about this approach, however we could not identify an alternative means of reaching the required range. We briefed our Customer Panel on this issue in full and we expect them to comment on it in their report. We do however feel that this approach, whilst not ideal, does fairly reflect the balance of the package in the context that the outperformance levels are going to be significantly harder to achieve and that they should therefore attract higher incentive

rates. Unfortunately we do recognise that the only approach we had available to us to do this was a top down scaling. This approach results in the following package balance:

PC name	2020-21	2021-22	2022-23	2023-24	2024-25	2020-21	2021-22	2022-23	2023-24	2024-25
Financial support	-0.04	-0.04	-0.04	-0.04	-0.04	0.00	0.00	0.00	0.00	0.00
Extra Care assistance	-0.01	-0.01	-0.02	-0.02	-0.02	0.00	0.00	0.00	0.00	0.00
Leakage South Staffs region	-0.39	-0.45	-0.56	-0.72	-0.92	1.18	1.20	1.23	1.26	1.28
Leakage Cambridge region	-0.32	-0.32	-0.46	-0.59	-0.76	0.88	0.88	0.91	0.93	0.94
Residential water consumption SST	-0.15	-0.15	-0.15	-0.15	-0.15	0.10	0.10	0.10	0.10	0.10
Environmentally sensitive water abstraction	-0.07	-0.07	-0.07	-0.07	-0.07	0.06	0.06	0.06	0.06	0.06
Protecting wildlife, plants, habitats and catchments	-0.10	-0.10	-0.10	-0.10	-0.10	0.09	0.09	0.09	0.09	0.09
Compliance risk index	-0.67	-0.67	-0.67	-0.67	-0.67	0.00	0.00	0.00	0.00	0.00
Supply interruptions	-0.94	-0.97	-0.99	-1.01	-1.04	0.79	0.76	0.73	0.70	0.67
Mains bursts	-0.44	-0.44	-0.44	-0.44	-0.44	0.87	0.87	0.87	0.87	0.87
Unplanned outage	-0.19	-0.19	-0.19	-0.19	-0.19	0.65	0.76	0.76	0.76	0.76
Customer contact about water quality	-0.71	-0.71	-0.70	-0.71	-0.71	0.94	0.94	0.94	0.94	0.94
Visible leak repair time	-0.35	-0.34	-0.33	-0.33	-0.33	0.45	0.38	0.31	0.31	0.31
Residential void properties and gap sites	-0.27	-0.22	-0.16	-0.11	-0.05	0.00	0.00	0.00	0.00	0.00
Residential water consumption CAM	-0.15	-0.15	-0.15	-0.15	-0.15	0.10	0.10	0.10	0.10	0.10

We think the package balance is reasonable, and there are no exceptionally large values expected at the P90 reward position. It should also be remembered that the reward incentives only apply if we go beyond our targets, which are already highly stretching and therefore it is unlikely. If it does occur, it will have been down to genuine outperformance and a significant step change in service which customers will benefit from.

Background on challenges involved in valuing financial incentives

We have utilised Ofwat's default incentive rate formulae for the majority of our performance commitments. However we have found that in some cases the results of these formulae, given their inputs, results in an answer which:

- Is not within Ofwat's guidance range of +/- 1-3% of regulated equity.
- Is not balanced across the package – for example some incentives appear disproportionately low or high given our understanding of customer's priorities and our own expectations.
- For this small number of measures we have worked hard, with industry experts, to understand why this may be happening, and how we can best accommodate it within the overall package

1. Willingness to pay outcomes

   We have undertaken a huge range of customer research and willingness to pay surveys, from managed workshops through to online panels. We have used external support and the advice of economic consultants in how we designed all of this research, and we have had our approach peer reviewed. Our Customer Panel have been engaged throughout. We then triangulated our data (again using external economic support) with other qualitative and quantitative data sources and also with the industry WTP information that was compiled by Paul Metcalf, which approximately 12 companies participated in. We consider our approach to be, understood by customers, thorough and robust.

   Despite these efforts, there are some issues with willingness to pay research that are having an effect on the results when the data is used. This is apparent in our own data and within other companies' data that was compiled in the industry comparison study.

   The main factor that we observe across all companies data is the effect that the service range has on the customer's WTP value. It appears that in some instances the range of service change does not always correlate with the valuation customers place, i.e. customers are valuing the service, not necessarily the increment of improvement.

   We understand from the information compiled by Paul Metcalf for the industry study, that our WTP values are about average at the raw level, yet when normalised we appear to be at the lower end of the scale in most metrics. Although there is no published information on the service range used by each company in the study, it is our understanding that this is because we have asked our customers about a larger service change range than other companies and this has the effect of spreading WTP across a bigger range, thus a reduced value. Without the knowledge of what service range was used for all companies, the comparisons presented in the industry study are missing a vital piece of information and are therefore not directly comparable.

   We communicated with Paul Metcalf on the subject, and our questions and his responses are below:

SSC. Would there have been any best practice in the level of service range we set?

PJM. Best practice isn't well defined in this area unfortunately. UKWIR (2011), for example, just says to include deterioration, base, and +1 and +2 improvement levels without defining what these should be. The advice that I have always given is to define a stretching service package as your +2 level and then set the +1 level to somewhere approximately half way between base level and the stretch package. This is not really satisfactory when 'stretch improvement' is not consistently defined across companies. This is an area that needs looking into if/when revised guidelines are produced for WTP.

We have attempted to take account of this issue by including industry data in our triangulation exercise, where we chose to bring in the industry data at a weight of 10%. This weight was selected because:

- It was unknown how the other studies were undertaken and whether they were compatible with our own or as robust, for example we did not know what service ranges had been used, what sample sizes had been used, what demographic splits had been used. These issues compound to result in less certainty about external data than our own.
- The local factor – we felt it was important to reflect the views we had obtained from our own customers at a greater weight than the views of customers from other regions/companies, whose circumstances and company performance might be different.
- We understood early on that the service range asked was influencing the results, but there is no right answer to this – as there is no industry consistency on the range of service change offered for the studies. We did not want to give undue weight to other companies' choice of approach over our own.

We asked Paul Metcalf about our triangulation approach in light of these observations:

SSC. Does it make sense to increase the weight of the industry data in our triangulation, or to use the industry WTP entirely?

PJM. The weight given to the industry data is appropriate I believe. The service change ranges were not chosen arbitrarily in any company's case, including your own, and so the package valued by your customers is, hopefully, the correct package to have been valued. Moreover, your own data is based on your customers' preferences not others and therefore should be given a much higher weight than other companies' results accordingly.

So Paul's view is that we have followed a triangulation approach that is reasonable and our customer's priorities should be given a higher weight than those of other companies.

There is no easy answer here, all approaches to resolve the incentives at the package level require deviating from a direct link to our own research and applying scale factors to try and increase the underlying valuation. We think the right answer is to utilise a mix of approaches and common sense application. We want to try and maintain the link to our own customer's priorities and at the same time apply scale factors that are not disproportionate based on the wider industry data set. We explain what adjustments we have made for each performance commitment later in this commentary.

2. Conversion of WTP from one units to another, and the use of assumptions

It was not possible to ask customers to value their WTP for all of our service measures in the format in which they will be used. This is because some performance commitments are

unavoidably technical, for example per capita consumption, unplanned outage and compliance risk index being three of the industry common ones. We needed to ask customers about metrics they could understand, knowing from the outset that this would ultimately require us to use this WTP data in a calculation which converts it into the required format.

We have had to be careful with transformations and use some common sense in applying top down rebalancing to ensure that the incentives in our package appeared proportionate to each other and reflected the high level priorities that customers expressed to us in our wider research programme.

3. Incremental costs

Ofwat's penalty formula uses and estimate of incremental costs, which act to offset the incremental benefit valuation whilst taking account of the 50% share factor in totex true up incentives.

An issue which has arisen for ourselves, and we believe for other companies also, is that the formula operates in a narrow window. If costs are greater than two times the value of the incremental benefit, then the formula does not work correctly, as it results in a negative incentive valuation.

Our incremental cost estimates have been developed from our business plan costs going forward and where appropriate an analysis of operations within the business.

There are a number of possible interpretations as to why the incremental cost estimates and the WTP estimates do not align when we try and use them together in the incentive formula:

- The cost estimates and WTP exercise were independent of each other. We would not naturally expect that the two approaches, entirely differently from one another in form and implementation, would align.
- The transformations we have had to make for some measures, to convert the WTP data and costs into the units of measure for the performance commitment, means that the WTP and costs become less compatible.
- The customer WTP could provide an indication that we are beyond the economic level, for some measures. If the WTP is significantly lower than the costs of delivery, then this would indicate that customers are not willing to meet the costs for further service improvement. This is difficult to conclude definitively however, because of the two points above. If we were to conclude that for some measures we are beyond the economic level, then this in fact doesn't change where we position targets for performance commitments. Our targets are based not only on customer preferences but also on the steer we receive from other stakeholder, such as Ofwat, other regulators and government. Examples of where other steer influences our targets is for leakage, water quality, PCC and supply interruptions. It would not be accepted as appropriate to allow a customer WTP derived economic level to override the other regulatory requirements in play.
- The effect of diminishing returns on continual performance improvement could also be influencing here. For many measures it is not operationally possible to improve service indefinitely. Each marginal improvement would cost a larger amount to implement for decreasing marginal benefit. It would be unreasonable to assume that customers' WTP would scale exponentially, given these diminishing returns (to an ever decreasing subset of customers) as service improves. We recognise that innovation over time can mean that service can be improved at the margins without cost increases, however innovation is incremental and it is difficult to predict what impact any innovations may have over a

longer timeframe than the five years. Innovations are often a combination of some expenditure plus efficiencies, working practices, culture change, management control, better quality data and better systems, and it is an evolution rather than a revolution especially when operating in a long term industry such as water utilities where a huge part of our operations is, rightly, about ensuring long term sustainability and maintenance of the asset base for future generations.

- On costs themselves, many service measures are measuring fundamental aspects of service which are grounded in long term maintenance plans. As we are asset intensive industry, many service level improvements will still depend on expensive and invasive long term programmes, such as mains renewal. As with the innovation point above, we can influence these service levels to a degree with operational practices however many will still require a continual and long term investment in the asset base in order to maintain service and to deliver improvements.

In conclusion, there are implicit challenges within WTP surveys, incremental benefit and cost estimates and compatibility between these, that give rise to difficulties in incentive valuation.

These challenges are why we need to keep the door open to top down, common sense alternatives where we are seeing the default formulae not work as expected, and we have made the adjustments to our incentive package that needed to be made to ensure it is a balanced risk profile for the business and represents customers' priorities appropriately.

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