4.1 Our revised package of outcome delivery incentives

Contents

A revised framework for setting ODIs

In this appendix we set out our revised package of ODIs. These revisions follow feedback that our original ODIs were not acting in the best interests of customers given that there was insufficient evidence that:

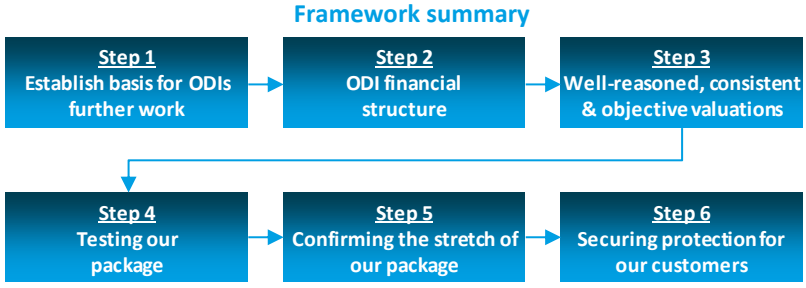
- our total ODI package provides appropriate incentives and aligns the interests of management and consumers, evidence by the low RoRE range;
- our ODI package has been supported by robust customer engagement and valuations; and
- there were sufficient protections for customers in the event we significantly outperform our PC targets.

In responding to the IAP we have chosen to look beyond the direct feedback from Ofwat and learn from the best practice, evident by those companies that scored highlight in this area (notably South West and South East).

The consequence is that we have developed a substantially revised ODI package that we believe aligns with Ofwat's requirement and our own customer expectations. This revised package builds on the changes we've paid to our PCs, as set out in Chapter 4 of the main document to this submission.

Approach – the framework is based on the following:

- **Preparation – review feedback and best practice** to develop a revised ODI design framework.
- **Step 1 – establish the basis for further work on ODIs** – if concerns and actions have been identified through the IAP process, the ODI will be identified for revision. These will then be taken through the remaining five steps alongside the other ODIs (which will be retested for consistency).
- **Step 2 – determine the appropriate financial structure** – whether the ODI should be financial or not, and if it is financial, whether the arrangement should be penalty-only, reward-only or have both penalty and reward.
- **Step 3 – ensure well-reasoned, consistent and objective ODI valuations** – making sure we use triangulated customer valuations where possible and where alternative valuations are require, that we've appropriately calculated these using uprate PR14 values, marginal cost date or sector normalised valuations.
- **Step 4 – testing our package** – will make sure ODI rates are consistent with sector normalised ranges. We will also review individual P10/P90 impacts to make sure these are appropriate, and we'll ensure that the RoRE ranges are appropriate in aggregate and across asset health measures.
- **Step 5 – confirming the stretch of our package** – by assessing the amount exposure in AMP7 should performance standstill either at 2017/18 levels or at the forecast levels for 2019/20.
- **Step 6 – securing protection for our customers** – ensuring there will be sufficient protections for customers in the event we significantly outperformance our PC targets.



Note – revisions to PCs and PC targets are set out in Chapter 4 of the main document to this submission

Step 1. Establishing the basis for revising ODIs

1.1 About this step

In this we set out the overarching feedback received in Ofwat's IAP before summarising the key feedback received on specific ODIs.

1.2 Overarching IAP feedback

The overarching feedback from the IAP generally relates to the need for additional, expanded, more convincing evidence. The areas where this is relevant are:

- our ODI type proposals and how these have been tested with customers;
- support for the use of outperformance payments and where these are proposed;
- the calculation and level of our proposed ODI rates;
- marginal benefit estimates that are reflective of our customers' preferences, with triangulated ODI rates that are based on a broader base of evidence;
- estimates of forecast efficient marginal costs, including evidence of how there relate to proposed cost adjustment claims or enhancement expenditure;
- how the ODI package creates the right incentivises, through better aligning the interests of management and shareholders with customers, to deliver on our PCs to customers; and
- customer acceptability/support for our ODI package, and how this is in the best interests of customers; and
- customers support for asset health outperformance payments.

In addition, we need to be clear where we propose changes to ODI rates as a result of cost adjustment claims being revised or rejected.

Finally we note that it will be important to provide additional protection for customers, both in the form of an appropriate outperformance payment-sharing mechanism and by implementing caps on the individual PCs that could result in material outperformance payments.

1.3 Detailed IAP feedback on specific ODIs

Ofwat's IAP identified a range of issues specific to individual ODIs. In summary these were:

- **Water Quality Compliance (CRI)** – the ODI should be penalty-only, rather than non-financial. Given that this is a new common measure, it will be appropriate to apply both a penalty deadband and penalty collar. For companies that have proposed ODI rates for this common PC, Ofwat has assessed these rates against its accepted sector range comparator. We also need to make sure there is coherence across the rates for the associated customer-facing impacts of the asset failure (including unplanned outage) and ensure this group of rates incentivises short and long-term performance.
- **Unplanned outage** – the ODI should be penalty-only, rather than non-financial.
- **Number of lead pipes replaced** – the justification for the proposed reward is not yet sufficient. Either this justification needs strengthening, or the measure would need to be penalty only.
- **Burst mains** – the proposed ODI rate sits below Ofwat accepted sector range comparator. We also need to make sure there is coherence across the rates for the associated customer-facing impacts of the asset failure (including leakage, supply interruptions and low pressure) and ensure this group of rates

incentivises short and long-term performance. In addition, the proposed deadbands have not been sufficiently justified, so either the case needs to be made or the deadbands removed.

- **Leakage** – the proposed ODI rates sit below the accepted sector range. Furthermore, the justification for the proposed reward is not yet sufficient, so this either needs strengthening, or the measure would need to become penalty only.
- **Water supply interruptions** – in line with its stated PR19 methodology, Ofwat is setting the PC targets for this measure at the sector UQ level for each year of AMP7. Additionally, the proposed penalty collar does not have sufficient justification and the proposed ODI rates sit below the accepted sector range comparator.
- **PCC** – the ODI should be penalty-only, rather than non-financial. For companies that have proposed ODI rates for this common PC, Ofwat has assessed these rates against its accepted sector range comparator.
- **Length of river water quality improved** – the justification for the proposed reward is not yet sufficient, so this either needs strengthening, or the measure would need to become penalty only.
- **Treatment works compliance** – we need to make sure there is coherence across the rates for the associated customer-facing impacts of the asset failure (including river water quality) and ensure this group of rates incentivises short and long-term performance. Furthermore, either the justification for the proposed penalty collar needs strengthening, or the collar should be revised and set at 99%.
- **Internal sewer flooding incidents** – The proposed penalty collar does not have sufficient justification and the proposed ODI rates sit below the accepted sector range comparator. We also need to make sure there is coherence across the sewerage PCs (including sewer collapses and pollution incidents) and ensure this group of rates incentivises short and long-term performance.
- **Sewer collapses** – the justification for the proposed reward is not yet sufficient, so this either needs strengthening, or the measure would need to become penalty only.
- **Pollution incidents** – as with water supply interruptions and internal sewer flooding, Ofwat is setting the PC targets for this measure at the sector UQ level for each year of AMP7. In addition, the justification for the proposed reward is not yet sufficient. Either this justification needs strengthening, or the measure would need to be penalty only.
- **Reduction in the number of void supply points** – the justification for the proposed reward is not sufficiently strong, as it is unclear how the arrangement is to the benefit of customers.

In addition to the above specific issues, the IAP identified that there is not yet a strong enough case for five of the PCs to have ODIs on an end-of-AMP basis. Either this case need to be made, or the rates should the ODI timing should be in-period for internal sewer flooding, sewer collapses, river water quality, low pressure and biodiversity.

For the other 12 PCs, Ofwat's IAP did not identified any specific ODI-related concerns. Nevertheless, we have reviewed the proposed ODI arrangements for these, to take account of both the IAP's overarching concerns on Outcomes and the specific concerns raised on individual ODIs.

Step 2. Appropriately structured ODIs

2.1 About this step

This section sets out how we've determined the appropriate structure for our ODIs. In the first instance, we focus on whether ODIs should be non-financial or financial, drawing on customer evidence in support of this.

We then move on to logically determine whether the financial ODIs should underperformance-only, out and underperformance or even outperformance only.

2.2 Customer evidence

We have used customer insight to inform the design of ODIs by combining evidence from 3 sources (Choices, Focus Groups and PC-ODI project). The first two pieces of research **were conducted in response to the IAP feedback.**

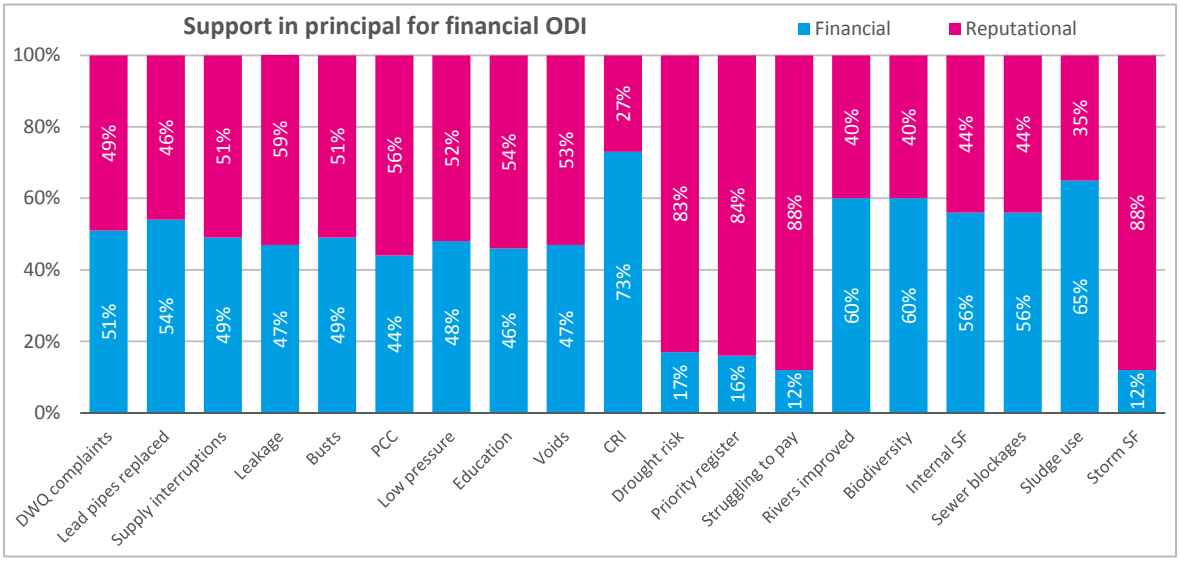
2.2.1 Choices

Our Choices research was carried out in February and March 2019, and provided us with quantitative insight from customers about the principle of ODIs, and their views about the ODI type for each of our PCs. It has also given additional insight about incentive rates.

This research revealed that whilst the headline reaction from customers to the use of financial incentives was initially opposition, when they saw the specific measures for many measures they were supportive of outperformance and under performance payments. We discuss below (and the results are also in our appendix on the Choices research).

At the start of the survey, 46% of customers surveyed said they disagreed with the principle of financial ODIs (based on the statement that a small amount of a customer's bill should be linked to the level of service received); 30% agreed with this principle.

However in the subsequent questions about the design of specific ODIs for a number of PCs, customers expressed a preference for financial incentives and typically rewards and penalties over reputational incentives.



Finally this research also sought customers' views about how the incentive rate is set for specific measures. In this research we chose to present customers with the Ofwat range given the importance of this information. Typically customers chose levels towards the middle of the Ofwat range presented, rather than those at the bottom of the range, which might have been expected for some measures given the initial preference for reputational incentives. This evidence suggests that, as customers begin to understand more about ODIs – when they see the proposed performance targets and the (relatively small) impact on bills – many begin to accept the concept of financial incentives.

Interestingly, those customers who had disagreed with the principle of financial ODIs at the start of the survey chose incentives rates for leakage and internal sewer flooding that were on average higher than those chosen by customers who had supported the principle of financial ODIs at the start of the survey.

2.2.2 ODI Choices deliberative workshops

In light of the results from the quantitative research, we undertook deliberative workshops to explore in more detail customers' views about ODIs and the design of specific measures.

Once customers had time to digest and understand the context of ODIs they generally support the principle of financial incentives and see them as a fair way to encourage us to improve and focus on what's important to customers. They also feel that financial incentives are more motivating than non-financial incentives, and most would not mind paying a little more providing it can be proven than performance has improved, and that they haven't personally experienced any service failures.

Financial incentives also became more appealing once customers were told that all water companies have ODIs, that Hafren Dyfrdwy is not predicted to make a profit until at least 2017, and that the predicted net penalty returned to customers for AMP6 performance (at around 40p) is relatively small.

Many were opposed to large penalties, on the basis that they could make it harder for companies to invest in infrastructure.

When it comes to rewards, customers view them as appropriate for urgent or emotive problem, such as lead pipes, or for difficult-to-achieve targets, such as a 74% improvement for supply interruptions. There should be no reward if the company gains other advantages from exceeding the target. For example, if leakage improves considerably, the company would save money by not having to treat as much water.

And, when it comes to application of rewards and penalties, customers want more information. For example some customers suggested information on bills about HD's performance and how this has translated into penalties and rewards on their bill.

In terms of the customers' overall perception and understanding of the sector. Most were unaware of Ofwat's regulation of water companies. But, they were both surprised and delighted that prices are regulated and that companies are required to improve performance continually. This knowledge helps to make financial ODIs more acceptable and desirable.

The final piece of insight covered the amounts customers thought it would be appropriate for bills to vary each year in response to changes in performance. This insight shows that customer have quite varying views on the amounts, if any, that are appropriate.

Customer support for bill changes to reflect performance

	No change	Up to £1	Up to £2	Up to £3	Up to £4	Don't know
Outperformance	60%	14%	11%	4%	2%	9%
Underperformance	41%	10%	20%	4%	9%	16%

When it comes to outperformance, the majority (60%) would prefer this not to results in an increase in bills, while close to one-third (31%) would be comfortable with maximum increases of at least £1. For underperformance, there is additional support for bill changes, with 43% favouring maximum reductions of at least £1; although two-fifths of customers (41%) would still prefer there to be no change in bill.

2.2.3 PCs and ODIs project

In our PCs and ODIs project, three quarters of the household customers surveyed and the same proportion of non-household customers surveyed supported having a small amount of their bill linked to company performance. Qualitative research from this project indicates that keeping the value low is important for customers, and most of those who were against the initiative voiced concern about financial implications or

what the money will be used for. Of those who don't find the concept acceptable, this is most commonly because they think it the water company's job to continually improve service (61% HH, 45% NHH).

Just under half of household customers (44%) feel reducing leakage should be the most important area to out-perform on. This is followed by reducing appearance, taste and smell complaints (39%) and reducing interruptions (31%). Amongst non-household customers, reducing levels of leakage is also seen as the most important target to exceed performance in (62%), followed by reducing the number of complaints about appearance, taste and smell (41%). Furthermore, customers want to know whether increases or decreases will be impacted by inflation. Indeed, some feel that incentives, as a maximum, should be in line with inflation levels.

2.2.4 Triangulating the customer evidence

The results from our research show quite mixed views about ODIs. Conceptually, a small majority of customers prefer reputational incentives, although this appears to fall away as they are better informed. This was evident as customers progressed through the Choices research, particularly when it came to the individual valuations exercise.

Alongside this specific view, we note that customers view a financial link between bills and service levels as acceptable. On one hand, this suggests we could justifiably set financial incentives for the vast majority of measures. However, given that the majority of bill-payers are uninformed, we don't think such an approach would properly reflect the typical customers' views. As the PCs and ODIs research and ODI Choices research revealed, there are underlying concerns with ODIs in respect of the potential impact on bills, the potential for bill instability and a fundamental view that water companies should not be rewarded for doing their day job, even if they have exceeded their performance target.

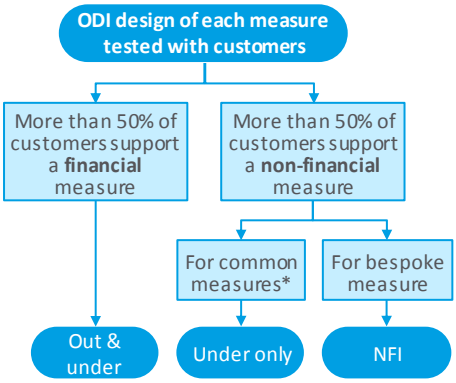
2.3 Our approach to designing the structure of ODIs

Companies can apply either financial or reputational incentives to each PC. Ofwat's methodology states that a company may "*…propose a reputational-only ODI, if the company provides convincing evidence that this is appropriate*."[1] In other words, although there may be some exceptions, the expectation is that ODIs should financial, as this is the best way to align company and customer interests.

2.3.1 The triangulated customer evidence had helped decide the financial structure for individual ODIs

The triangulated results of our different customer engagements gave us a clear set of tram tracks that inform when and how financial incentives should be used.

[1] Ofwat, (13 Dec 2017), "*Appendix 2: Delivering outcomes for customers*," p 76.



*Unless Ofwat guidance is for a common measure to have non-financial incentives

Where more than 50% of customers supported out and underperformance payments financial incentives for a specific measure from our Choices research, such measures will have out and under performance payments.

In the event the majority support non-financial incentives, we have taken a more nuanced approach. If customers made this judgment about a bespoke measure, we concluded that it is appropriate to make the incentive reputational only.

Where such views have been expressed for common measures, we have determined that underperformance payments should still apply, in order to adequately protect customer interests and make sure there are strong incentives to achieve our stretching targets. However no outperformance payments would be applied

To manage the cognitive load in the surveys, it was necessary to omit certain measures from this survey (and given feedback from research field agents the survey could not have been made any longer). This means we do not have evidence of customer support for financial ODIs for some measures. For simplicity, we have treated these measures in exactly the same way as those measures where the majority of customers would prefer non-financial incentives (ie, reputational or penalty-only)

In addition to our logic for common measures, we've also taken note of Ofwat's exception for the two resilience common PCs (because they are at relatively early stages of development). These two measures will be set as non-financial.

The financial structure of incentives for each PC

PC	Customer support	Common or bespoke	Incentive type	Reason for decision
Good to drink				
Water Quality Compliance (CRI)	73% financial	Common	Under only	Common PC, with majority support for financial ODI. Incentive for underperformance only, in line with Ofwat approach for the sector
Drinking water quality	51% financial	Bespoke	Out & under	Bespoke measure, with majority support for financial ODI. Incentive for out and underperformance.
Number of lead pipes replaced	54% financial	Bespoke	Out & under	Bespoke measure, with majority support for financial ODI. Incentive for out and underperformance.
Water always there				
Supply interruptions	51% reputational	Common	Under only	Common PC, with majority support for reputational ODI. Incentive for underperformance only
Leakage	59% reputational	Common	Under only	Common PC, with majority support for reputational ODI. Incentive for underperformance only
PCC	56% reputational	Common	Under only	Common PC, with majority support for reputational ODI. Incentive for underperformance only
Drought risk	83% reputational	Common	NFI	Common PC, with majority support for reputational ODI. Set as NFI, in line with Ofwat exception for this measure.
Mains bursts	51% reputational	Common	Under only	Common PC, with majority support for reputational ODI. Incentive for underperformance only
Unplanned outage	n/a	Common	Under only	Common PC, without majority support for financial ODI. Incentive for underperformance only
Low pressure	52% reputational	Bespoke	NFI	Bespoke measure, with majority support for reputational ODI. Incentive will be NFI
Source resilience	n/a	Bespoke	NFI	Bespoke measure, without majority support for financial ODI. Incentive will be NFI

PC	Customer support	Common or bespoke	Incentive type	Reason for decision
Thriving environment				
Length of river improved	60% financial	Bespoke	Out & under	Bespoke measure, with majority support for financial ODI. Incentive for out and underperformance.
Biodiversity	60% financial	Bespoke	Out & under	Bespoke measure, with majority support for financial ODI. Incentive for out and underperformance.
Satisfactory sludge disposal	65% under only	Bespoke	Under only	Bespoke measure, with majority support for under only ODI. Incentive for underperformance only
Treatment works compliance	n/a	Common	Under only	Common PC, without majority support for financial ODI. Incentive for underperformance only
Making a positive difference to our communities				
Inspiring customers (education)	54% reputational	Bespoke	NFI	Bespoke measure, with majority support for reputational ODI. Incentive will be NFI
Wastewater safely taken away				
Internal sewer flooding	56% financial	Common	Out & under	Common measure, with majority support for financial ODI. Incentive for out and underperformance.
Pollution	n/a	Common	Under only	Common PC, without majority support for financial ODI. Incentive for underperformance only
Sewer blockages	56% financial	Bespoke	Out & under	Bespoke measure, with majority support for financial ODI. Incentive for out and underperformance.
Extreme flooding	88% reputational	Common	NFI	Common PC, with majority support for reputational ODI. Set as NFI, in line with Ofwat exception for this measure.
Sewer collapses	n/a	Common	Under only	Common PC, without majority support for financial ODI. Incentive for underperformance only
Lowest possible bills				
Voids	53% reputational	Bespoke	NFI	Bespoke measure, with majority support for reputational ODI. Incentive will be NFI
An outstanding customer experience				
Non-household customer experience	n/a	Bespoke	Out & under	Matched to expected CMeX arrangements
Compliance with Welsh Language scheme	n/a	Bespoke	NFI	Bespoke measure, with majority support for reputational ODI. Incentive will be NFI
A service for everyone				
Priority Service Register growth	84% reputational	Bespoke	NFI	Bespoke measure, with majority support for reputational ODI. Incentive will be NFI
Help to pay when you need it	88% reputational	Bespoke	NFI	Bespoke measure, with majority support for reputational ODI. Incentive will be NFI
Effectiveness of affordability support	88% reputational	Bespoke	NFI	Bespoke measure, with majority support for reputational ODI. Incentive will be NFI

Note – CMeX and DMeX are not covered here as Ofwat is addressing these separately.

Overall, we believe our package strikes the right balance between giving robust incentives to deliver against our commitments, and protecting customers sufficiently if we do not. In making sure that our package will be as effective as possible, we've set financial ODIs for 19 of our commitments.

Alongside the financial ODIs, there will be nine non-financial ODIs, where the reputational effect will nevertheless provide powerful incentives for us to deliver on these promises. In order to make sure this is the case, we will work closely with Discover Water to enhance and raise the profile of reporting on common PCs and, for bespoke PCs, we will make sure to provide clear, readily available information to customers about past and current performance, along with the stretching targets that will allow customers to set their expectations and judge performance in future.

We also considered where we should apply enhanced ODIs. Ofwat's methodology allows for enhanced ODIs on common PCs only. We have decided not to apply under or out performance enhanced ODIs to any PCs. This is because our 2020 to 2025 plan is ambitious across the full suite of PCs and the incentives around the PCs are balanced. The potential is that including enhanced incentives on some PCs may provide undue focus on a subset of areas, and may lead to an unbalanced risk and reward package

2.4 Keeping to in-period ODIs where possible

We appreciate that in-period ODIs bring service payments closer in time to when customers receive the service, and would therefore make our financial ODIs more powerful. We have decided to apply in-period ODIs in all cases, except for Length of River Water Quality. We believe this is as necessary because of uncertainty over the additional improvements required/justified each year and because assessing performance annually could drive the wrong incentives and give undue focus to annual targets

2.5 Application of deadbands, caps and collars

2.5.1 Deadbands

In order to make sure that financial ODIs provide effective incentive, it's important that use of deadbands is limited and used only on an exceptional basis. Otherwise they risk both undermining the incentive for companies to improve their performance and reducing transparency for customers. Therefore, we intend to use deadbands only in three cases where there are sufficient exceptional grounds to do so.

The first is **Water Quality Compliance (CRI)**, because of the notable uncertainty that arises from having a new measure with low data availability on current performance levels. We are proposing a deadband of 4.0 points, which is wider than the 1.5 points proposed in the IAP – this was calculated as ½ a standard deviation above the average level of performance in 2017/18. As set out in Chapter 4, this wider deadband will help mitigate the risk of misperceptions that companies have failed on water quality – which is why the DWI had previously advocated a reputational incentive. This is an important consideration given that the measure will actually indicate that companies need to take action to prevent an issue arising in the future. A further benefit of the wider deadband is that it will reduce the potential for perverse incentives that discouraging sampling (simply to reduce the risk of failure). Further detail on this explanation is in Annex B to this document.

The second measure is **Water Supply Interruptions**, to reflect our unique characteristics in this regard. Our analysis confirms that achieving this level of performance is extremely challenging due to the inherent characteristics of our network that we are not able to address through management intervention or increased investment over the next five years.

The Water Supply Interruptions challenge

Briefly, the challenge is the result of the different materials that our pipes are made from and our geographical layout. In Powys we have a high proportion of asbestos cement and PVC mains – 51% compared with 21% for SVE. This involves pipes materials that cause more supply interruptions than other (by a factor of 3 and 1.5 respectively). And when these interruptions do occur, the geography and network characteristics mean it takes 22% longer to become aware, travel to, isolate, fix and recharge the network. A further challenge for us is with continuous supply responses, which are more difficult because of limited opportunities for rezoning and access constraints for tankers. The combination of these factors, and the fact that most of these are beyond management control provide the exceptional circumstances for setting a deadband.

We are committed to achieve upper quartile performance but believe is appropriate to use this analysis to create a 3 minute dead-band above the 3 minute target – the full detail on how we determined the appropriate deadband level is in the main document to this submission, in section 4.2.2 of Chapter 4.

The other measure is **Treatment Works Compliance**, where the IAP requested that we should investigate setting the under-performance deadband for this measure at 99%, rather than our proposed level of 97.9%. Based on our analysis of available sector data, we established that the proposed targets would require seven out of eleven companies (including ourselves) to have no failing works, but that the other four could have between one and seven failing works, but still achieve their targets. It's worth noting that that our deadband of 97.9% does not give us the headroom for multiple works failures, because a single treatment works failure would result in a compliance score of 97.9% (which means that a deadband of 99% would be misleading for us as it is not possible to have fewer than one works failing). By contrast, the deadbands proposed by the other companies would allow them to have between three and 17 works failing. Overall, if our deadband were removed, or even set at 99%, then we would have by far the most stretching target of the industry. Therefore we have concluded that the deadband should remain at 97.9%, consistent with one works failing in any year. Further detail on this explanation is in Annex B to this document.

2.5.2 Caps and collars

ODIs at PR19 will be powerful, and so we will have strong incentives to meet (and indeed beat) our targets. But, if the risk and reward potential is unbalanced, then then we could see poor incentives and too much focus on achieving specific targets simply because of poor calibration. In terms of protecting customers and treating them fairly, caps and collars can offer a suitable solution for making sure the risk and reward balance is appropriate.

We are acutely aware that from an uninformed basis our customers do not overwhelmingly support financial ODIs – either as a general principle or on an individual PC basis. In fact, there are only eight PCs where customers have shown a preference for financial ODIs in our latest piece of research. A further consideration is the fact that we've applied underperformance incentives for the common PCs even when customers preferred non-financial ODIs.

Overall, the balance of these views means that we need to do more to make sure we've taken full account of this insight on our customers. To do this, we think our approach at PR19 needs to go further than the methodology and IAP feedback by strengthening the caps and collars arrangements. Therefore, we have taken the decision – after much consideration – that it is necessary to apply caps and collars in this manner to all measures with financial ODIs.

We concluded that this is the right approach having reflected on Ofwat's PR19 methodology and IAP feedback. The PR19 methodology noted that one benefits of caps and collars would be to allow "*…companies to have higher ODI rates, focused over a smaller performance range*."[2] Given our customers' reticence towards incentives and performance payments, this has allowed us to make sure we retain strong financial incentives to achieve our stretching performance targets and make sure customer interests are protected. We've also reflected on Ofwat's guidance in the IAP[3], which sets an expectation for "*…companies to put caps and collars at their P10/P90 performance levels on an annual performance basis, where… …there is considerable uncertainty.*" For us, the point about uncertainty important, not because of data reliability/sparsity issues, but more to do with the uncertainty over the level of support from customers of performance payments – while there are individual PCs were customers support such payments (as discussed earlier), such customers are not a significant majority.

[2] Ofwat, (13 Dec 2017), "Appendix 2: Delivering outcomes for customers," p 95.
[3] [3] Ofwat, Technical appendix 1 Delivering outcomes for customers, 2019, p. 22. https://www.ofwat.gov.uk/wp-content/uploads/2019/01/Technical-appendix-1-Delivering-outcomes-for-customers-final.pdf

The presence of the outperformance caps also ensures that we will retain focus across the package throughout AMP7 and that extreme outperformance cannot be used to either earn undue rewards or off-set underperformance elsewhere. The protection from these caps and collars will also protect against bill volatility that could arise in the event of extreme under or outperformance, particularly where such performance happens in one year, but not in the years either side.

In terms of the penalty collars, there are three main reasons as to why these are entirely appropriate. Firstly their presence will prevent compounding, whereby a particularly challenging event could result in significant underperformance, which could then be compounded if we made significant losses to the extent they limit our ability to respond well in future. Secondly, it provides balance – as general principle it is reasonable to provide collars as a response to adding caps, particularly where the collars refer only to significant underperformance, thereby providing a reasonable balance between customers and shareholders. Finally, as will be seen later on, the plan will remain skewed towards the downside even with the collars in place, given a RoRE range of -2.0% to +0.5%. This means that shareholder will be protected from undue financial risks, but nevertheless remain significantly incentivised to avoid underperformance.

In addition to the micro-level protection provided by the individual caps and collars, we will also have macro-level protection for customers from the 50-50 sharing mechanism (which we've proposed in Step 6) for outperformance greater than 3% of RoRE. The combination of these protection also serve to address the required action from the IAP that we should apply additional protections through an appropriate outperformance payment sharing mechanism and by implementing caps on individual PCs which could result in material outperformance payments.

The underperformance collar for **internal sewer flooding** is worth drawing out, as we've set our P10 collar to take account of the undue risks from of extreme weather. The lack of hydraulic flooding in our area means that we are not able to separately model the impacts of extreme weather on internal sewer flooding. Nevertheless, we still the potential for extreme weather and blockages to coincide does present an undue financial risk from extreme weather. So, we've modelled the collar for each year on the basis of the average annual collars (on a normalised basis) presented in the companies' Business Plan submissions (the values for TMS were excluded as outliers).

Application of caps and collars

PC	Customer support	Common or bespoke	Incentive type	Cap or collar	Arrangement
Good to drink					
Water Quality Compliance (CRI)	73% financial	Common	Under only	Collar	Standardised sector wide
Drinking water quality	51% financial	Bespoke	Out & under	Cap and collar	P10/P90 performance level
Number of lead pipes replaced	54% financial	Bespoke	Out & under	Cap and collar	Unchanged – protects customers from extreme outperformance
Water always there					
Supply interruptions	51% reputational	Common	Under only	Collar	Standardised sector wide
Leakage	59% reputational	Common	Under only	Collar	P10 performance level
PCC	56% reputational	Common	Under only	Collar	P10 performance level
Drought risk	73% reputational	Common	NFI	NFI	NFI
Mains bursts	51% reputational	Common	Under only	Collar	P10 performance level
Unplanned outage	n/a	Common	Under only	Collar	20% below the stable level for AMP7
Low pressure	52% reputational	Bespoke	NFI	NFI	NFI
Source resilience	n/a	Bespoke	NFI	NFI	NFI

PC	Customer support	Common or bespoke	Incentive type	Cap or collar	Arrangement
Thriving environment					
Length of river improved	60% financial	Bespoke	Out & under	Cap and collar	P10/P90 performance level
Biodiversity	60% financial	Bespoke	Out & under	Cap and collar	P10/P90 performance level
Satisfactory sludge disposal	65% under only	Bespoke	Under only	n/a	Performance has been 100% back to the start of AMP5. So a collar will not be applied in this case.
Treatment works compliance	n/a	Common	Under only	Collar	P10/P90 performance level
Making a positive difference to our communities					
Inspiring customers (education)	54% reputational	Bespoke	NFI	NFI	NFI
Wastewater safely taken away					
Internal sewer flooding	56% financial	Common	Out & under	Cap and collar	P10/P90 performance level
Pollution	n/a	Common	Under only	Collar	P10 performance level
Sewer blockages	56% financial	Bespoke	Out & under	Cap and collar	P10/P90 performance level
Extreme flooding	88% reputational	Common	NFI	NFI	NFI
Sewer collapses	n/a	Common	Under only	Collar	P10 performance level
Lowest possible bills					
Voids	53% reputational	Bespoke	NFI	NFI	NFI
An outstanding customer experience					
Non-household customer experience	n/a	Bespoke	Out & under	TBC	TBC
Compliance with Welsh Language scheme	n/a	Bespoke	NFI	NFI	NFI
A service for everyone					
Priority Service Register growth	84% reputational	Bespoke	NFI	NFI	NFI
Help to pay when you need it	88% reputational	Bespoke	NFI	NFI	NFI
Effectiveness of affordability support	88% reputational	Bespoke	NFI	NFI	NFI

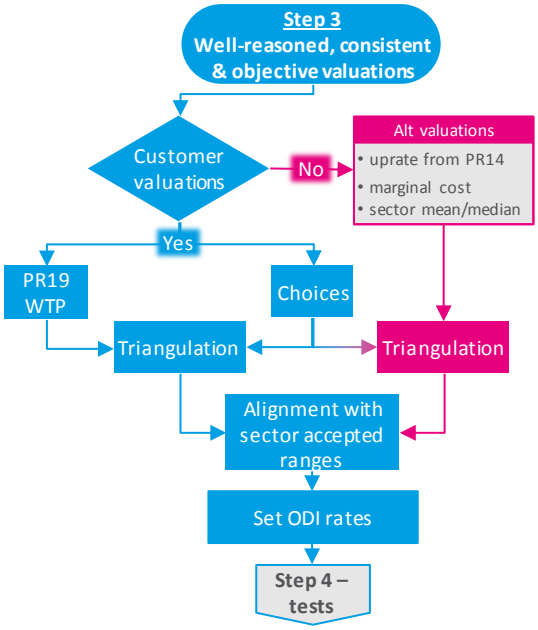
Note – CMeX and DMeX are not covered here as Ofwat is addressing these separately.

2.5.3 Gated and trigger ODIs

Taking note of Ofwat's preferences in its methodology, we've not used either gated ODIs or trigger ODIs.

Step 3. Well-reasoned, consistent and objective valuations

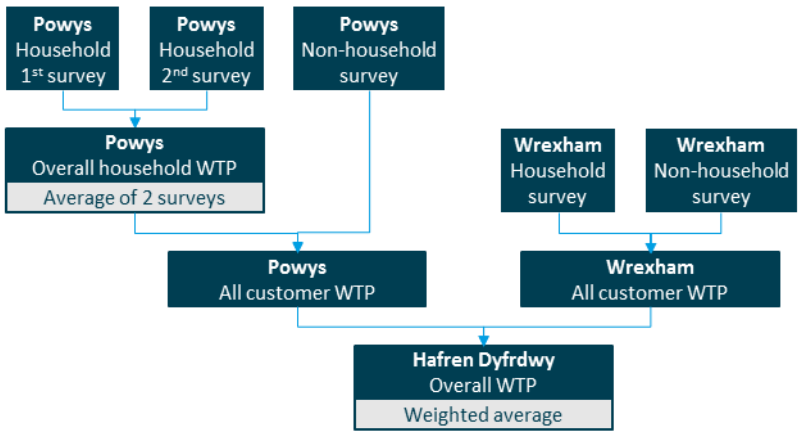
3.1 About this step



The section focusses on testing that we have well-reasoned, consistent and objective valuations. It starts out by setting out the valuations that we already had available to us from our earlier work on the draft Business Plan published in September last year. These valuations included our customers' willingness to pay valuations for changes in service levels, and marginal cost valuations where needed, and the baseline PR14 ODI valuations, uprated to PR19 prices, for ODIs where customer and marginal cost valuations are less readily available. We then introduce the valuations from our very latest round of research – the Choices research – undertaken specifically for this revised Business Plan. We then triangulated our existing valuations with the new additional insight from customers, to arrive at our final set of valuations for PR19. We then checked these rates were aligned with the accepted ranges for the sector, before setting our final ODI rates.

3.2 Our customers' willingness to pay for changes in service levels

We undertook two different valuation research projects to obtain stated preference WTP valuations by customer-type and by region within Hafren Dyfrdwy (we discuss the valuations from the Choices research later). Part of the Severn Trent England WTP research included a small but representative sample in Powys. As these customers had been presented with Severn Trent average service levels and bills, we commissioned a further WTP survey for both Powys and Wrexham. This focused on bespoke measures and service levels that were tailored to the HD region, and also made sure to cover Welsh language speaker were catered for.



Combining the different elements of the research involved the following steps:

- creating an overall WTP figure for household customers in Powys by averaging the results from the two surveys. This was then combined with the results for the Powys non-household to give the overall valuation across all Powys customers;
- the overall WTP valuation for Wrexham was created from the household and non-household results;

- the Powys and Wrexham results were then brought together as a weighted average (based on customer numbers) to give the overall company-wide valuation.

The combined, recalculated WTP valuations are as follows.

Service attribute		Unit of performance	WTP (£)
Water	Appearance of tap water	1 complaint	349
	Taste and smell of tap water	1 complaint	3,443
	Number of lead pipe replaced	1 pipe	133,250
	Water supply interruptions	1 property	15.82
	Leakage	1 Ml/day	4,329
Waste	Length of river water quality improved	1 kilometre	83,133
	Internal sewer flooding incidents	1 incident	15,200
	Pollution incidents	1 incident	8,036

For length of **river water quality** improved, we employed WTP values that were researched and published by the Environment Agency. For the area relevant to our region – Severn Uplands – the WTP, in 2017/18 prices, is £83,133 per kilometre on an end-of-AMP basis.

3.3 Setting ODIs where customer valuations could not be established

There are service attributes where identifying customer valuations is not straightforward. This may be the result of particular attributes not having a direct interface with the customer; or the service area being difficult to express in a sufficiently meaningful manner that allows customers to give coherent valuations. In these circumstances, we've considered two different options for identifying valuations.

3.3.2 We have used marginal cost valuations to set ODIs

Our preference is to use short-run marginal cost values – derived from the incremental cost of improving the service area by one increment. On the basis that these marginal costs are a proxy for the benefit valuation, they are then multiplied by 50% to arrive at the ODI rate, which ensures consistency with the totex cost sharing element of Ofwat's methodology. The rate is then increased by a further 20% – in line with Ofwat's approach for using marginal cost to set ODI rates for AIM – to avoid leaving the company indifferent to performance and, thereby, make sure there is an incentive to perform.

3.3.3 We have adopted PR14 valuations, uprated to PR19 prices, to set ODIs

For certain measures, such as compliance, marginal cost information is not readily available. For example, given that compliance should be the status quo and non-compliance a deviation from that status quo, it is difficult to identify the incremental service changes necessary for estimating marginal cost. In such cases, our framework adopts the PR14 valuations, uprated for inflation, given these are already successfully driving desired performance outcomes. Where possible, we have sought to use Dee Valley PR14 ODIs as the basis for this approach. However, as Dee Valley did not have PCs in all the areas that we are proposing for Hafren Dyfrdwy at PR19, we have also drawn on Severn Trent valuations from PR14. In these instances, to make sure we attribute an appropriate proportion to Hafren Dyfrdwy, by adjusting the amount according the RCV of Hafren Dyfrdwy's relevant business, as a proportion of Severn Trent's corresponding business.

In a variation to the above approach, if a financial ODI did not exist for either Dee Valley or Severn Trent at PR14, then we have used the Severn Trent value for PR19. This too is then adjusted for the relative difference in RCV valuations.

Summary of valuation sources

Service attribute	Initial valuation					Post IAP valuation
	WTP	Marginal cost	DVW PR14	SVT PR14	SVE PR19	Choices
Appearance of tap water	✓	–	–	–	–	✓
Taste and smell of tap water	✓	–	–	–	–	✓
Number of lead pipe replaced	✓	✓	–	–	–	✓
Water supply interruptions	✓	–	–	–	–	✓
Leakage	✓	–	–	–	–	✓
Length of river water quality improved	✓	–	–	–	–	✓
Internal sewer flooding incidents	✓	–	–	–	–	✓
Pollution incidents	✓	–	–	–	–	–
Hectares managed for biodiversity	–	✓	–	–	–	✓
Inspiring our customers to use water wisely	–	✓	–	–	–	✓
Number of void supply points – combined bill	–	✓	–	–	–	✓
Number of void supply points – water only bill	–	✓	–	–	–	✓
Asset health – burst mains	–	–	✓	–	–	–
Treatment works compliance	–	–	–	✓	–	–
Sewer blockages	–	–	–	✓	–	✓
Sewer collapses	–	–	–	–	✓	–
PCC	–	–	–	–	–	✓

3.4 Further testing of valuations with customers via Choices research

Our Choices research is designed to address the IAP challenge to demonstrate that we've used different research techniques and that we've derived customer valuations from more than a single piece of research.

The Choices research has focussed particularly on those ODI rates that the IAP identified as requiring further work, and has been designed to quantify customer views on the following:

- the extent of support for the principle of ODIs;
- the timing of performance payments – in-period or end-of-AMP – and the logic for the customers' choices;
- the appropriate design of performance payments for different groups of ODIs – reputational, underperformance-only, outperformance-only, both under and outperformance – and the logic for the customers' choices;
- an appropriate upper limit for aggregate ODI underperformance and outperformance payments; and
- individual ODI rates – for each service area, customers were shown a starting value, that they could choose to vary within a set range. For each ODI, both the starting value and range were based on the acceptable ranges that Ofwat had identified in the IAP. We chose not to use our original valuations in this exercise, given that they had yielded ODI rates that resulted in a risk and reward package that was substantially below Ofwat's indicative range. By using Ofwat's values, this gave us an opportunity to test whether customers supported valuations more in line with those seen elsewhere in the sector.

3.5 Triangulating our customer valuations

3.5.1 Creating the triangulated values

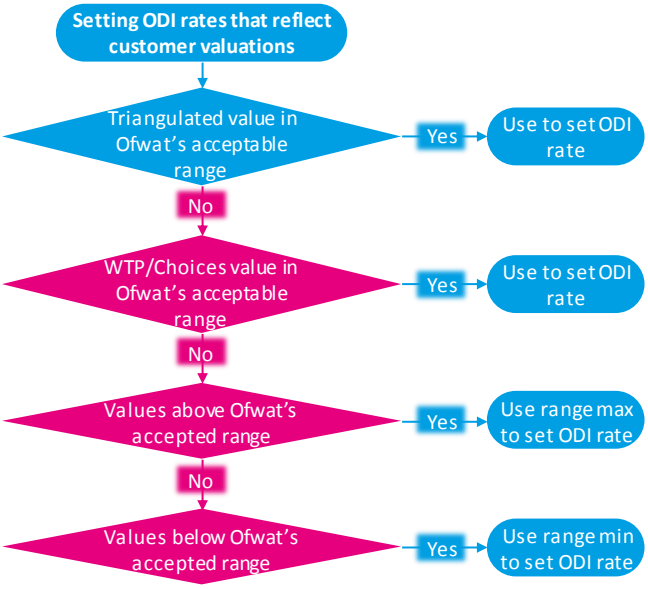
By undertaking the Choices research, we are now in a position to create triangulated customer valuations in conjunction with our earlier WTP Research/initial valuations. Our options for the triangulation are:

- to set the valuations based on proportions from the WTP Research/initial valuation and the Choices Research; or

- simply use the Choices results, on the basis that is an updated view of the WTP Research/initial valuations.

We have opted for a simple proportion based approach, where both sets of valuations are given equal weighting, on the basis that the views for each customer group are equally valid. So, balancing the two through averaging is appropriate in this circumstance.

3.5.2 Further testing of the triangulated values



Our triangulation exercise has also incorporated a phased approach to make sure that wherever possible we are setting ODI rates that both reflect the valuations expressed by our customers and that these are consistent with the rest of the sector. In the first instance, our preference is to use the triangulated result. This is subject to the rate being within the estimated acceptable range for the sector (using Ofwat's calculations, or our own as set out below). If it is not, then our fall-back option is to use the single valuation (WTP or Choices) that falls within the range. In the event this is not the case, then we've adopted a valuation from the acceptable range – using the range max value when the valuations exceed the range, and the range min value when the valuations fall below the range.

3.5.3 The basis for the further testing of the triangulated results

Comparing ODI rates

An important step in our framework for setting ODI rates is comparing our results to industry data to ensure that there are no outliers. This step is particularly important given the issues Ofwat identified in the IAP, whereby it found substantial variation across companies both on an absolute and per household basis[4]. For this reason Ofwat has asked companies in their business plan resubmission to:

"…explain why their proposed ODI rates differ from a range around the industry average and to demonstrate that this variation is consistent with customers' underlying preferences and priorities for service improvements."

Approach

To compare incentive rates for different ODIs we have utilised the headline methodology from Ofwat's IAP feedback. This involves comparing rates on a household basis (we refer to this as the ODI comparison methodology). Although there is a strong basis for including non-households in this comparison (given ODIs primarily relate to wholesale services), in it's the interests of simplicity we have used the households for our ODI comparison methodology.

For the most part this comparison is a relatively straightforward and involves dividing the incentive rate by the number of households across each measure.

[4] Ofwat, Technical appendix 1 Delivering outcomes for customers, 2019, p. 10. https://www.ofwat.gov.uk/wp-content/uploads/2019/01/Technical-appendix-1-Delivering-outcomes-for-customers-final.pdf

However there is an element of complexity where the PC measure has been normalised[5]. Dividing the normalised incentive rates by the number of household customers **will produces results that create the appearance of low incentive rates for small companies, because the denominator is inevitably lower**. However if we were to apply the ODI comparison methodology by first calculating the incentive rate per incident and then converting it to a household rate, we get a more balanced picture.

This point can be illustrated using **internal sewer flooding**. In the table below we have applied the two methodologies to compare ODI rates. We have also calculated the sample statistics used by Ofwat and then considered the implications of applying the mean to HD. As can be seen, the current comparison method identifies HDD as an outlier below the lower bound. However, if we intervened on the rate and applied the mean valuation, this would result in every customer paying almost £1.60 for a reduction in internal sewer flooding, which is 13 times higher than the next company SWT. This suggests the methodology when applied to normalised companies doesn't work for small companies.

The solution (referred to as the *revised approach)* we have taken is to un-pack the normalised rates for these measures and then convert this to a household rate. This allows us to assess whether the incentive rates for HD are outliers or not based on the methodology of 0.5 standard deviations from the mean.

Internal sewer flooding

Company	Waste households (2022-2023)	Published ODI rates £m/incident per 10k connections		Initial comparison method £/HH/incident per 10k connections		Revised approach £/HH/incident	
		Under	Out	Under	Out	Under	Out
HDD	22,171	-0.017	0.017	-0.789	0.789	-0.356	0.356
Upper bound (0.5 st dev from mean)				-7.445	4.865	-0.149	0.133
Mean				-5.095	3.499	-0.087	0.073
Lower bound (0.5 st dev from mean)				-2.745	2.133	-0.025	0.013
What happens if we apply the mean to HDD							
£ per incident per 10k connections				-112,953	77,575	-4,281	3,589
£ per incident				-50,946	34,989	-1,931	1,619
£ per household per incident				-2.30	1.58	-0.09	0.07

Note - the full table can be found in Annex C

In addition, there are three measures where the PC is normalised according to the relevant network length – **pollution incidents**, **sewer collapses** and **mains bursts**. Again, these are measures where the normalisation approach is extremely helpful for allowing meaningful comparisons of performance across companies, but when it comes to measuring value for individual customers this is best done by comparing the incentive rates on a per incident (or per increment) per customer basis. Further detail on this analysis and the associated insight can be found in Annex C, and the key takeaways are:

- **Pollution Incidents** – the revised approach identifies the original incentive we proposed is a below-range outlier, by margins of around 30% on the underperformance payments and 10% on outperformance payments;
- **Sewer Collapses** – the revised approach finds that our original incentive to be an outlier that exceeds the upper bound value by over 70 times; and
- **Mains Bursts** – the revised approach calculates that the incentive we originally proposed was almost three times over the upper bound valuation.

The final consideration concerns **Leakage**, where the original approach was to compare incentives on the basis of the value per household per 1% of distribution input (DI). While this helps give insight on the degree of comparative and absolute stretch companies have set themselves, it is less informative for comparing incentive rates. This is best explained by reference to the range mean, which is of £1.545 per household per

[5] The normalisation of PCs is helpful because it allows service performance of small and large companies to be compared on a consistent basis.

1% of DI. For a large company, with DI of around 1,800 MLD, this would suggest that it would need to save 18 MLD for it to be worth £1.545 to each of its customers. By contrast, a small company like Hafren Dyfrdwy, with DI of 59 MLD would only need to save 0.59 MLD to be worth the same amount to each of its customers – suggesting that our customers place 30 times the value on saving one megalitre of water as those of a larger company. To resolve this challenge, the most appropriate method for comparing and understanding the benefit to customers is to expect them to value the volume saved and therefore compare incentive rates on a £ per-household per-MLD basis. With the full analysis on this measure given in Annex C, the key point to draw out here is that the revised analysis sill identifies HDD as a below-range outlier. But, this is to a much lesser extent, at around half the value of the lower bound rather than 18% in the initial approach.

Our revised approach helps make sure that ODI rates are proportionate for a company of our size

The tables below set out how our revised approach has helped to make sure that our ODIs are proportionate and appropriately scaled for a company of our size. Principally, the approach involves creating a clear basis for comparison by unwinding the double-aggregation effect that occurs with ODIs that are in place for normalised metrics. This is because such the normalisation of the ODI creates an extra aggregation effect that is in addition to the aggregation effect of customer/household numbers that is common to all ODIs.

In the case of internal sewer flooding, if we used the original approach and applied the values to our customer-base, the underperformance ODI would be expected to fall in the range of £27,000 to £74,000. However, for these numbers to be a fair reflection of their interests, customers would require a WTP per household of around £2.50 to £6.70 per incident (derived by dividing the ODI range amounts by the number of waste households (22,171) and multiplying by 2). Under the revised approach it estimates the WTP per household to be £0.05 and £0.30, which is more logical and consistent given the WTP estimates for other companies – for Anglian the per household WTP per incident, implied by its reward rates, is £0.03; for Severn Trent post-IAP it is £0.23; and for South West the WTP is £0.24 (also post IAP).

Waste measures

	Internal sewer flooding				Pollution incidents				Sewer collapses			
	£/HH/ incident per 10k connections		Revised approach £/HH/ incident		£/HH/incident per 10,000km of sewer		Revised approach £/HH/ incident		£/HH/incident per 1,000km of sewer		Revised approach £/HH/ incident	
	Under	Out	Under	Out	Under	Out	Under	Out	Under	Out	Under	Out
Upper bound	-7.445	4.865	-0.149	0.133	-0.309	0.253	-0.131	0.095	-0.272	0.179	-0.013	0.005
Lower bound	-2.745	2.133	-0.025	0.013	-0.159	0.131	-0.058	0.046	-0.082	0.052	-0.002	0.001
What happens if we convert the ranges into per incident ODIs for HDD												
Upper bound	-74,446	48,648	-3,304	2,952	-216,742	177,216	-2,909	2,101	-19,091	12,541	-297	102
Lower bound	-27,447	21,331	-558	285	-111,489	91,594	-1,292	1,028	-5,761	3,628	-44	32

Under our revised approach, we've used the companies' individual ODI rates on a £ per-household per-incident basis and calculated the upper and lower bounds following Ofwat's approach in the IAPs. We've then converted these boundary values into relevant ODI rates to us, by multiplying them by our household numbers. For comparison, we've also shown the upper and lower bounds produced by the original IAP analysis. These too have been converted into per incident ODI rates, first by un-normalising these boundary values and then multiplying up by our household numbers. Overall, the clearest insight provided by this comparison is the importance of resolving the double-disaggregation effect that is present in the ODIs that will apply to normalised metrics.

Water measures

	Mains bursts				Leakage			
	£/HH/repair per 1,000km of mains		Revised approach £/HH/repair		£/HH/1% distribution input		Revised approach £/HH/MLD	
	Under	Out	Under	Out	Under	Out	Under	Out
Upper bound	-0.095	0.075	-0.007	0.009	-2.445	2.191	-0.788	0.731
Lower bound	-0.036	0.030	-0.002	0.002	-1.030	0.900	-0.078	0.052
What happens if we convert the ranges into ODIs for HDD								
Upper bound	-3,121	2,473	-590	776	-367,527	329,357	-69,931	64,879
Lower bound	-1,182	975	-192	160	-154,773	135,229	-6,893	4,591

The story that we've seen here for internal sewer flooding is repeated similarly for the other two waste measure and for both of the water measures. Again, the revised approach serves to give ODI rates that are more reflective of our customers' overall views on performance payments; are much more consistent in terms of individual WTPs for incremental changes in service levels and are appropriate and proportionate for a company of our size. Moreover, we see that our revised approach is consistent with Ofwat's stated intention of comparing "*…companies' marginal valuation amounts… …and outperformance and underperformance payment rates, for the same performance commitments at PR19*."[6]

3.5.4 Setting the final triangulated ODI rates

Having tested the triangulated rates against the appropriate comparative ranges, we applied further interventions to seven incentives. This saw higher than excepted values brought down to the upper bound of the sector acceptable range. Lower than expected values were increased to the lower bound of these accepted ranges.

Input values to the triangulation and final triangulated ODI rates

PC	WTP Research/ initial ODI valuation	Choices research ODI valuation	Triangulated ODI valuation	ODI aligned to accepted range	Additional comment
Good to drink					
Water Quality Compliance (CRI)	n/a	33,118	33,118	33,118	
Drinking water quality	566	62	314	177	Realigned to the upper bound of the sector ODI range, that is 0.5 standard deviations from the mean, on a £/household/increment basis
Number of lead pipes replaced	1,911	9,767	5,839	5,839	
Water always there					
Supply interruptions	6,002	33,740	19,871	19,871	
Leakage	2,164	201,551	101,857	4,591	Realigned to the upper bound of the sector ODI range, that is 0.5 standard deviations from the mean, on a £/household/MLD basis
PCC	n/a	14,206	14,206	14,206	
Drought risk	NFI	NFI	NFI	NFI	NFI
Mains bursts	2,592	n/a	2,592	776	Realigned to the upper bound of the sector ODI range, measured as the median value, on a £/household/ incident basis
Unplanned outage	n/a	n/a	n/a	23,037	
Low pressure	NFI	NFI	NFI	NFI	NFI

[6] Ofwat, (13 Dec 2017), "Appendix 2: Delivering outcomes for customers," p 90.

PC	WTP Research/ initial ODI valuation	Choices research ODI valuation	Triangulated ODI valuation	ODI aligned to accepted range	Additional comment
Source resilience	NFI	NFI	NFI	NFI	NFI
Thriving environment					
Length of river improved	41,566	38,799	40,183	40,183	
Biodiversity	891	776	833	833	
Satisfactory sludge disposal	n/a	n/a	n/a	907	Aligned to the lower bound of the sector ODI range, that is 0.5 standard deviations from the mean, on a £/household/increment basis
Treatment works compliance	2,052	n/a	2,052	2,052	
Making a positive difference to our communities					
Inspiring customers (education)	NFI	NFI	NFI	NFI	NFI
Wastewater safely taken away					
Internal sewer flooding	7,600	30,374	18,987	3,304	Realigned to the lower bound of the sector ODI range, that is 0.5 standard deviations from the mean, on a £/household/incident basis. Choices and triangulated values were not used as these were based on original ODI ranges that result in unduly large WTP values per incident per household
Pollution incidents	4,018	n/a	4,018	2,909	Realigned to the upper bound of the sector ODI range, that is 0.5 standard deviations from the mean, on a £/household/incident basis.
Sewer blockages	3.05	24.39	13.72	13.72	
Extreme flooding	NFI	NFI	NFI	NFI	NFI
Sewer collapses	1,281	n/a	1,281	297	Realigned to the upper bound of the sector ODI range, measured Upper Quartile value, on a £/household/ incident basis
Lowest possible bills					
Voids	NFI	NFI	NFI	NFI	NFI
An outstanding customer experience					
Non-household customer experience	TBC	TBC	TBC	TBC	TBC
Compliance with Welsh Language scheme	NFI	NFI	NFI	NFI	NFI
A service for everyone					
Priority Service Register growth	NFI	NFI	NFI	NFI	NFI
Help to pay when you need it	NFI	NFI	NFI	NFI	NFI
Effectiveness of affordability support	NFI	NFI	NFI	NFI	NFI

Note – all ODI rates are shown on a per increment basis (including PCs that are set on a normalised basis)

Final ODI package valuations

PC	Common or bespoke	Incentive type	Cap or collar	Final incentive rates
Good to drink				
Water Quality Compliance (CRI)	Common	Under only	Collar	33,118
Drinking water quality	Bespoke	Out & under	Cap and collar	177
Number of lead pipes replaced	Bespoke	Out & under	Cap and collar	5,839
Water always there				
Supply interruptions	Common	Under only	Collar	19,871
Leakage *(normalised)*	Common	Under only	Collar	4,591
PCC	Common	Under only	Collar	14,206
Drought risk	Common	NFI	NFI	NFI
Mains bursts *(normalised)*	Common	Under only	Collar	1,837
Unplanned outage	Common	Under only	Collar	23,037
Low pressure	Bespoke	NFI	NFI	NFI
Source resilience	Bespoke	NFI	NFI	NFI
Thriving environment				
Length of river improved (end-of-AMP)	Bespoke	Out & under	Cap and collar	40,183
Biodiversity	Bespoke	Out & under	Cap and collar	833
Satisfactory sludge disposal	Bespoke	Under only	Collar	907
Treatment works compliance	Common	Under only	Collar	2,052
Making a positive difference to our communities				
Inspiring customers (education)	Bespoke	NFI	NFI	NFI
Wastewater safely taken away				
Internal sewer flooding *(normalised)*	Common	Out & under	Cap and collar	11,141
Pollution incidents *(normalised)*	Common	Under only	Collar	149
Sewer blockages	Bespoke	Out & under	Cap and collar	13.72
Extreme flooding	Common	NFI	NFI	NFI
Sewer collapses *(normalised)*	Common	Under only	Collar	153
Lowest possible bills				
Voids	Bespoke	NFI	NFI	NFI
An outstanding customer experience				
Non-household customer experience	Bespoke	Out & under	TBC	TBC
Compliance with Welsh Language scheme	Bespoke	NFI	NFI	NFI
A service for everyone				
Priority Service Register growth	Bespoke	NFI	NFI	NFI
Help to pay when you need it	Bespoke	NFI	NFI	NFI
Effectiveness of affordability support	Bespoke	NFI	NFI	NFI

Note – all ODI rates are shown as they will appear in App 1 of the Data Tables

Step 4. Testing our package – a fair balance of risk & reward

4.1 About this step

This step sets out how and why we're confident that we have developed a package that reflects customer views, with coherence across groups of measures and a reasonable range for risk and reward. This is supported by our expected RoRE range impacts and our mechanism for sharing significant outperformance

with customers. We also set out that there's an appropriate role for asset health measures and that the ODI rates, their underlying valuations and marginal cost are all reasonably balanced.

4.2 Our balanced package reflects customer views

In the context of ensuring that our ODIs rates are reasonably consistent across our business and are coherent across groups of measures, we're aware that there are instances where incentives will lean towards certain measures or groups of measures. This is to be expected for high priority areas, especially those that customer find to be highly emotive.

Nevertheless, we have made sure that our ODI rates are consistent with those across the sector. This has seen us adopt triangulated ODI values where they fall within Ofwat's acceptable range. Where this has not been the case, then we've adopted the nearest value from the range, using the maximum or minimum value as applicable.

4.2.1 Coherence across groups of measures

The feedback we received in the IAP included a request that we provide further clarity on the consistency of ODI rates across between measured in particular groupings.

Unplanned outage and drinking water compliance

The ODI for unplanned outages is penalty only, which means customers are not exposed to the risk of double-counting with the financial ODI for drinking water compliance. A further consideration is that the drinking water compliance measure serves to capture the experiential effects for customers that arise from failures that include, but are not limited to, unplanned outage. This means that there is coherence between unplanned outage and drinking water compliance in our ODI package.

Furthermore, there should be no overlap in terms of customers valuations, in that an unplanned outage means that a site does not supply water is unlikely to result in drinking water compliance issues. This is because water would be provided from other plant connected to the network, which can be expected to be compliant with drinking water standards.

Low pressure, leakage, burst mains and supply interruptions

PC	Priority	ODI rate	ODI metric	Severity of impact
Burst mains	Important – basic	£776	per incident (not normalised)	Least severe – may not affect individual customers directly
Low pressure	Important – basic	£929	per property	Less severe – experienced directly by customers, but specific to individual properties
Leakage	Very important – basic	£4,591	MLD	Most severe – consistent with customers ranking this as a very important priority, reinforcing the view that customers dislike water being wasted on a continuous basis network-wide.
Supply interruptions	Important – basic	£19,871	per minute	More severe, significantly effecting large number of customers in a way that causes them significant inconvenience

There is clear logic to the ODI rates for low pressure, leakage, burst mains and supply interruptions – the rates rise in value across these measures in line with the severity of the impact on customers:

- **Burst mains** has the lowest value, reflecting that bursts, while still important, may not affect customers directly in terms of the service they receive at their premises.
- The ODI rate for **low pressure** is higher than for burst mains, which is understandable given that low pressure means direct experiential effects for individual customers that have the potential to persist over a period of time. It's also worth noting that although low pressure may relate to leaks or bursts, there are other causes such as the property's geographical elevation.

- The next highest ODI value is **leakage**, which, at first glance, might look surprising given the direct experimental effects for customers will likely be limited. However this is to be expected given that customers clearly dislike water being wasted (something that is reflected in Ofwat's challenge for the sector to reduce leakage by 15% over AMP7). The ongoing nature of leakage is also likely to play a further part in its customer valuation, even if the direct experimental effects for customers will likely be limited. As it remains persistent, with any apparent progress to customers being slow at best, it's a problem that customers see as high priority.
- **Supply interruptions** has the highest ODI rate of this group, which serves to highlight the severity of impact across a large number of customers in a manner that causes them significant inconvenience. And it is this inconvenience that makes it logic for this measure to have a higher valuations that leakage, even though customers have stated that leakage has a slightly higher priority. It's also worth noting that supply interruptions may be related to burst mains, but the clear difference in valuations shows customers fully understand the difference between bursts having the potential to interrupt supply and interruptions actually taking place.

Treatment works compliance & river water quality

On first inspection, there might appear to be the potential for significant overlap between customer valuations for treatment works compliance and river water quality. This is not the case however for two main reasons:

- the expectation for **treatment works compliance** measures should be full compliance with permit standards, where penalties are imposed when companies fall short on their regulatory and legal obligations (and cause detriment);
- our **river water quality** measure relates to work to improve river water quality, to comply with the Water Framework Directive. This means that penalties would apply in the event that we do not deliver the improvements expected in our targets. Rewards can also be earned in the event that we deliver improvements over-and-above our targets. The structure of this measure also allows us to retain flexibility to be able to finance additional improvements in the event of changes to Water Framework Directive (WFD) objectives.

With these points taken into consideration, it become clear that there is no potential overlap as the two measure are capturing two very different, unrelated aspects. Furthermore there is no customer risk as only one measure has scope for outperformance.

Internal sewer flooding, pollution incidents and sewer collapses

PC	Priority	ODI rate	ODI metric	Severity of impact
Internal sewer flooding	Very important – basic	£3,304	per incident	Most severe – highly invasive, emotive service failure
Pollution incidents	Important – basic	£2,909	per incident	Medium severity – although incidents are not directly seen by customers and are unlikely to have experiential effects for them, there are impacts on the environmental
Sewer collapses	Important – basic	£1,281	per incident	Least severe – not directly seen by customers. Unlikely to have any environmental effects or experiential effects for customers

There is clear logic to the ODI rates for internal sewer flooding, pollution incidents and sewer collapses – the rates rise in value across these measures in line with the severity of the impact on customers:

- The ODI rate for **internal sewer flooding** is the highest in this group, which serves to highlight that internal flooding is one of the most highly invasive, significantly emotive service failures that customers can experience. The invasive nature and general yuk-factor of such events mean that customers will perceive them very differently from pollution incidents, which are less likely to be experienced first-hand.

- **Pollution incidents** has a lower ODI rate than internal sewer flooding, which is expected given the reasons set out above. The potential for environmental impacts, even if they are not directly seen or experienced by customers, still mean that customers place noticeable value on performance in this area.
- **Sewer collapses** has the lowest value, reflecting that such incidents are not directly seen by customers and are unlikely to have any environmental effects or experiential effects for customers, such as sewer flooding. The very different nature of these three measures also gives confidence that customers valuations for each of these measures are not capturing (in other words double counting) the value of the other measures in this group.

4.3 A reasonable range for risk and reward

4.3.1 Our expected RoRE range impacts reflect a balanced ODI package

Under the aggregate P10/P90 scenarios, our risk and reward package is worth -2.0% to +0.5% of RoRE, which, on the underperformance side compares well with Ofwat's expectation that the RoRE range should lie between 1% and 3% of RoRE. The potential for upside does look constrained, but it's important to keep in mind that views from our customers have led us to set a number of our common PCs as underperformance only. Had the majority of customers favoured financial ODIs for these common measures, this would have given scope for additional upside, including the aggregate upside RoRE valuation.

Our ODI package will also deliver balanced and consistent incentive across our businesses and thereby will drive performance improvements for customers. This is evidence by the disaggregated RoRE ranges for the water and waste price controls. For the water businesses, the package is worth -2.1% to +0.4% which is similar to the overall RoRE range and also compare well with Ofwat's indicative range of RoRE. For the waste businesses, the expected range is worth -1.3% to +1.3% of RoRE and reflects that there is more scope for outperformance payments in waste, largely because the majority of customers favoured financial incentives for the common PCs in this area.

4.3.2 An appropriate role for asset health measures

Ofwat has placed a high weight on how companies have responded to the challenge on asset health. This means that, if the RoRE impact from asset health measures is low, there could be grounds for increasing this impact (subject to the impact on the overall RoRE range), even if this is not strictly supported by our customer research. The logic here is that there may not be direct experiential impacts for customers from changes in asset health performance, such that customer valuations actually under-estimate the true importance of these measures.

In testing our triangulated ODI rates, we made sure that these fell within the acceptable ODI ranges for the sector (where Ofwat had calculated them or where we has sufficient data to calculated them using Ofwat's method). This mean that the asset health ODIs for burst mains, unplanned outage and sewer collapses have benefitted from this alignment process, thereby making sure that the proposed rates are sufficiently prominent. It's also worth highlighting again that we've set the four common asset health measures to apply underperformance payments only. In reaching this decisions, we took note of the fact that the majority of our customers did not support financial measures. Nevertheless, we determined, as these were common measures and were focussed on asset health, that some form of financial incentive would be necessary to drive performance towards the stretching targets and protect customer interests in the process.

The contribution of these four measures to the P10 performance is -0.2%, with no upside contribution as they are all underperformance only measures. It's worth noting that treatment works compliance does not actually make a contribution to the P10 amount, because our expectation is that, even at the P10 performance level, our expectation is that we will still be in compliance.

4.3.3 The comparison of ODI rates and marginal cost helps demonstrate we have a stretching plan and there will not be undue performance payments

We have checked our ODI rates, in the form of marginal benefits compared with the estimated marginal cost of incremental improvements. The balance across the package give us confidence that the incentive rates will not result in payments that exceed the value of the benefits – there are the individual caps and collars and the aggregate sharing mechanism also provide further confidence on this point.

It's worth noting that, while exercises involving marginal costs always present challenges in dealing with joint and common costs, the general pattern that we've observe, whereby marginal costs exceed marginal benefits, gives additional insight – beyond the RoRE range of -2.0% to +0.5% – on the degree of stretch that we've set ourselves for AMP7. In other words, the comparisons confirm that performance targets have been set at a point beyond where marginal cost and marginal benefit are in perfect balance.

Marginal cost versus marginal benefit for the key common financial measures

	Marginal cost	Marginal benefit
Water supply interruptions	157,520	39,742
Leakage	11,791	9,183
Internal sewer flooding incidents	119,497	22,282
Pollution incidents	139,724	298

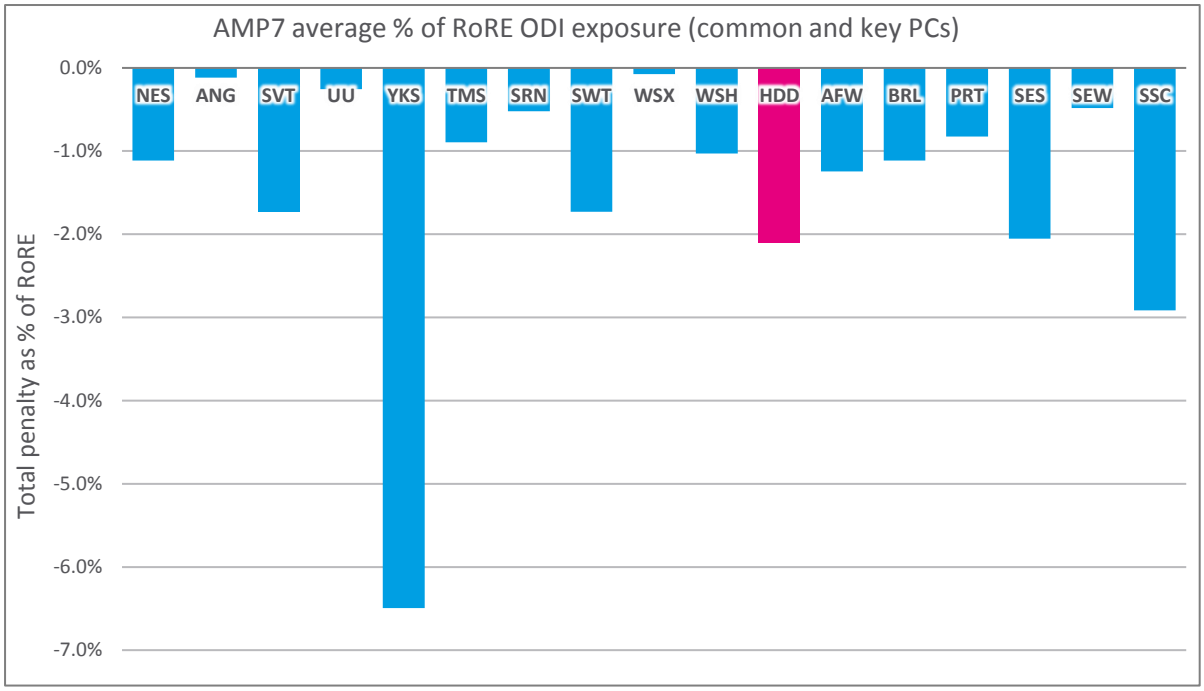
Given the nature of this analysis, it is not possible to conduct the exercise for every measure. This was the case for compliance measures – namely, CRI, sludge disposal and treatment works compliance – because the need for compliance is the driver for decision-making, not benefit-cost ratios, means marginal cost calculations are not appropriate. Also outside of this analysis were the measures where improvements result from infrastructure investment – this involves large-scale, lumpy capital expenditure that is driven by multiple factors beyond ODI incentives – and any marginal cost calculations will be vastly larger than the marginal benefit being studied. PCC has also sat outside of this analysis, because it too has multiple drivers – not all of which are within the control of water companies (eg legislation and building standards) – thereby obscuring the link between costs and changes in PCC levels.

Step 5. Confirming the stretch of our package

5.1 Our packing has set challenging targets that will both drive improved performance for customers and protect their interests

The final step in developing our revised package has been to confirm that we've set ourselves a significant degree of stretch.

We've looked to assess the overall level of stretch of the package, with reference to current performance. We adopted a quantitative approach to the testing, which has involved calculating the average annual RoRE impact for AMP7 based on (i) for measures with existing data, performance does not improve from 2017/18 levels and (ii) for new measures or where current performance in unavailable, AMP7 performance is at the P10 level. According to this stretch test, we'd face underperformance payments worth -2.1% of RoRE for each year of the AMP7 period, predominantly from our common and key PCs. This compares very well with the rest of the sector, where, according to the Business Plan submissions, only two companies had set more stretching challenges across their common and key PCs – this is shown in the chart below.



This gives us additional confidence in the challenge we've set ourselves, alongside the expected RoRE-range impact of our proposed ODI package of -2.0% to +0.5% of RoRE, and demonstrates that the overall package is stretching.

Step 6. Securing protection for our customers

Further to individual cap and collars, the balance across price controls and the overall RoRE ranges, we are putting in place additional protect for customers. In the event our performance sees us earn rewards beyond the 3% upper bound of Ofwat's acceptable RoRE range, we would share this additional income with customers on a 50:50 basis via their bills. This is in line with best practice.

Our final ODI package

PC	Incentive type	Cap or collar	ODI rate	ODI metric
Good to drink				
Water Quality Compliance (CRI)	Under only	Collar	33,118	£/index point
Drinking water quality	Out & under	Cap and collar	177	£/customer contact
Number of lead pipes replaced	Out & under	Cap and collar	5,839	£/lead pipe
Water always there				
Supply interruptions	Under only	Collar	19,871	£/minute
Leakage	Under only	Collar	4,591	£/MLD
PCC	Under only	Collar	14,206	£/litres-per-person-per-day
Drought risk	NFI	NFI	NFI	NFI
Mains bursts	Under only	Collar	1,837	£/burst/1,000 km of mains
Unplanned outage	Under only	Collar	23,037	£/percentage point
Low pressure	NFI	NFI	NFI	NFI
Source resilience	NFI	NFI	NFI	NFI
Thriving environment				
Length of river improved (end-of-AMP)	Out & under	Cap and collar	40,183	£/km
Biodiversity	Out & under	Cap and collar	833	£/hectare
Satisfactory sludge disposal	Under only	n/a	907	£/percentage point
Treatment works compliance	Under only	Collar	2,052	£/percentage point
Making a positive difference to our communities				
Inspiring customers (education)	NFI	NFI	NFI	NFI
Wastewater safely taken away				
Internal sewer flooding	Out & under	Cap and collar	11,141	£/inciden0/10,000 connections
Pollution	Under only	Collar	149	£/incident/10,000 km of sewers
Sewer blockages	Out & under	Cap and collar	13.72	£/incident
Extreme flooding	NFI	NFI	NFI	NFI
Sewer collapses	Under only	Collar	297	£/incident/1,000 km of sewers
Lowest possible bills				
Voids	NFI	NFI	NFI	NFI
An outstanding customer experience				
Non-household customer experience	Out & under	TBC	TBC	NFI
Compliance with Welsh Language scheme	NFI	NFI	NFI	NFI
A service for everyone				
Priority Service Register growth	NFI	NFI	NFI	NFI
Help to pay when you need it	NFI	NFI	NFI	NFI
Effectiveness of affordability support	NFI	NFI	NFI	NFI

Annex A– Our revised ODI package has risen to the challenges raised in the IAP

A.1 Good to drink

Water Quality Compliance (CRI)

Description

The DWI's compliance risk index. It is a measure designed to illustrate the risk arising from treated water compliance failures. It aligns with the current risk based approach to regulation of water supplies used by the Drinking Water Inspectorate.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Ofwat has determined the ODI should be underperformance only	We changed from a non-financial ODI to an underperformance only ODI
Deadbands	
Ofwat has determined an underperformance deadband of 1.5 points will be appropriate in all years	We've set an underperformance deadband at 4.0 points in all year – this was calculated as ½ a standard deviation above the average level of performance in 2017/18. This is a level that will help mitigate the risk of misperceptions that companies have failed on water quality – which is why the DWI had previously advocated a reputational incentive. This is an important consideration given that the measure will actually indicate that companies need to take action to prevent an issue arising in the future. A further benefit of the wider deadband is that it will reduce the potential for perverse incentives that discouraging sampling (simply to reduce the risk of failure). Further information on this can be found in Chapter 4.
Caps and collars	
Ofwat has determined than an underperformance collar at 9.5 points is appropriate in all years	We've set an underperformance collar at 9.5 points in all years
ODI rate	
Ofwat has determined the ODI should be underperformance only	We've developed a suitable underperformance ODI rate from our Choices research – research that was underpinned by the acceptable ranges for ODI rates that Ofwat set out in the IAP. The ODI rate now compares well with the acceptable range

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	0	0	0	0	0
Penalty collar	9.5	9.5	9.5	9.5	9.5
Penalty deadband	4.0	4.0	4.0	4.0	4.0
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	33,118	33,118	33,118	33,118	33,118

Number of complaints about drinking water quality

Description

Total number of complaints about appearance, taste and odour per year.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
none	We've revised the ODI rate following further testing in our Choices research – research that was underpinned by the acceptable ranges for ODI rates that Ofwat set out in the IAP. The ODI rate now compares well with the acceptable range

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	432	375	317	317	317
Penalty collar	475	413	349	349	349
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	389	338	285	285	285
ODI type	Out & under	Out & under	Out & under	Out & under	Out & under
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	177	177	177	177	177

Number of lead pipes replaced

Description

Number of lead communication and supply pipes replaced

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Justification for proposed reward is not sufficient	Retesting with customers has found the majority (54%) support this measure as financial for both under and out performance
Deadbands	
none	none
Caps and collars	
none	The caps and collars have been retained unchanged, in order to protect customers from extreme outperformance.
ODI rate	
none	We've revised the ODI rate following further testing in our Choices research – research that was underpinned by the acceptable ranges for ODI rates that Ofwat set out in the IAP. The ODI rate now compares well with the acceptable range

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	100	150	70	70	70
Penalty collar	0	0	0	0	0
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	920	920	920	920	920
ODI type	Out & under	Out & under	Out & under	Out & under	Out & under
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	5,839	5,839	5,839	5,839	5,839

A.2 Water always there

Water supply interruptions

Description

Average supply interruption greater than, or equal to, three hours (minutes per property).

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	Changed to underperformance only, as further research found 51% though this measure should be reputational. As this is a common PC, we have chosen to make it underperformance-only to maintain incentives to achieve stretching targets and protect customer interests
Deadbands	
none	Our analysis confirms that achieving the UQ performance target is extremely challenging due to the inherent characteristics of our network that we are not able to address through management intervention or increased investment over the next AMP. We are committed to achieve UQ performance but believe is necessary to create a 3 minute dead-band above the UQ target – the full detail on how we determined the deadband is in section 4.2.2 of Chapter 4 of the main document.
Caps and collars	
The justification for our proposed collar was not sufficient	We've now aligned our proposed collar at 14:40 minutes, in line with the average collar for the sector.
ODI rate	
The proposed rates is below Ofwat's accepted range for the sector	The revised rate falls within Ofwat's accepted range for the sector. This new value benefits from our fresh triangulation work, which incorporated the results from our Choices research – research that was based on the Ofwat's accepted ranges for the sector.

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	04:17	03:58	03:40	03:22	03:00
Penalty collar	14:40	14:40	14:40	14:40	14:40
Penalty deadband	07:17	06:58	06:40	06:22	06:00
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	19,871	19,871	19,871	19,871	19,871

Leakage

Description

The total level of leakage, including service reservoir losses and trunk main leakage plus customer supply pipe leakage, in megalitres per day (Ml/d), reported as a three-year average.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Justification for proposed reward is not sufficient	Changed to underperformance only, as further research found 59% though this measure should be reputational. As this is a common PC, we have chosen to make it underperformance-only to maintain incentives to achieve stretching targets and protect customer interests
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
The proposed rates is below Ofwat's accepted range for the sector	The revised rate falls within acceptable ranges for the sector. This new value benefits from our fresh triangulation work, which incorporated the results from our Choices research – research that was based on the Ofwat's accepted ranges for the sector. The rate was further adjusted to align with the ODI ranges derived from a per-incident per household basis – as our original ODI rate was below the lower end of this range, it was aligned to this lower-bound value.

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	13.66	12.95	12.32	11.94	11.56
Penalty collar	14.65	13.89	13.22	12.81	12.40
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	13.53	12.82	12.20	11.82	11.45
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	4,591	4,591	4,591	4,591	4,591

PCC

Description

Average amount of water used by each person that lives in a household property (litres per head per day). Reported as a three-year average.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Ofwat has determined the ODI should be underperformance only	We changed from a non-financial ODI to an underperformance only ODI
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
The proposed rates is below Ofwat's accepted range for the sector	The revised rate falls within Ofwat's accepted range for the sector. This new value benefits from our fresh triangulation work, which incorporated the results from our Choices research – research that was based on the Ofwat's accepted ranges for the sector.

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	154.9	153.9	153.0	152.0	151.0
Penalty collar	170.4	169.3	168.3	167.2	166.1
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	14,206	14,206	14,206	14,206	14,206

Resilience – drought risk

Description

Percentage of the population that would experience severe supply restrictions (e.g. standpipes or rota cuts) in a 1-in-200 year drought.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	0	0	0	0	0
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	–	–	–	–	–
ODI form	–	–	–	–	–
ODI rate	–	–	–	–	–

Asset health – burst mains

Description

The number of mains bursts per thousand kilometres of total length of mains.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
Justification for proposed deadband is not sufficient	The deadbands are now removed
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
(i) ODI below accepted sector range (ii) Consistency across asset health measures	(1) The revised rates fall within Ofwat's accepted range for the sector. These new values benefit from our fresh triangulation work, which incorporated the results from our Choices research – research that was based on the Ofwat's accepted ranges for the sector. The rates were further adjusted to align with the ODI ranges derived from a per-incident per household basis (ii) Consistency across asset health measures is covered in section 4..3.2

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	112.05	111.6	111.15	110.71	110.27
Penalty collar	123.26	122.76	122.27	121.78	121.30
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	1,837	1,837	1,837	1,837	1,837

Asset health – unplanned outage

Description

The annualised unavailable flow, based on the peak week production capacity.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Ofwat has determined the ODI should be underperformance only	As we were unable to retest customer preferences for the financial structure, we've taken this to mean that we do not have majority support for outperformance payments on this measure, Therefore we have set it to be underperformance only
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable). We have set the collar at the point that is 20% below the stable level for AMP7.
ODI rate	
none	The incentive rate has been derived from the lower bound of Ofwat's accepted range for the sector.

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	Stable	Stable	Stable	Stable	Stable
Penalty collar	20% below stable	20% below stable	20% below stable	20% below stable	20% below stable
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	23,037	23,037	23,037	23,037	23,037

Properties at risk of receiving low pressure

Description

The total number of properties that have received, and are likely to continue to receive, pressure below the reference level.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	Further testing with customers established that 52% favoured making this bespoke measure reputational only, which we have now done.
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	53	41	41	41	41
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	–	–	–	–	–
ODI form	–	–	–	–	–
ODI rate	–	–	–	–	–

Source resilience

Description

The percentage of the population exposed to a potential 24 hour supply interruption in the event of a failure to any water resource or treatment asset – see the appendix titled "*Securing long-term resilience*"

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Develop a direct bespoke resilience PC linked to HDD resilience challenges and strategy	We developed this new PC to provide additional incentives for maintaining long-term resilience and address the requirement identified in the IAP.
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	29.5	29.5	29.5	29.5	29.5
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	–	–	–	–	–
ODI form	–	–	–	–	–
ODI rate	–	–	–	–	–

A.3 Thriving environment

Length of river water quality improved

Description

The length of river benefitting from quality improvement work that we've undertaken to meet Water Framework Directive (WFD) objectives.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Justification for proposed reward is not sufficient	Retesting with customers found that 60% of customers supported this as a financial measure for both under and out performance, so we have retained this structure for the incentive
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
none	We've revised the ODI rate downwards, following further testing in our Choices research and subsequent triangulation. We've also found the ODI revised ODI rate is consistent with the marginal cost valuation – it's just 2% less. This allows critical flexibility for dealing with the uncertainties of the exact length of improvements that will be required by WINEP

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	0	0	0	21.9	0
Penalty collar	–	–	–	20	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	24	–
ODI type	Out & under	Out & under	Out & under	Out & under	Out & under
ODI timing	End-of-AMP	End-of-AMP	End-of-AMP	End-of-AMP	End-of-AMP
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	40,183	40,183	40,183	40,183	40,183

Hectares managed for biodiversity

Description

Hectares managed for biodiversity or under a catchment intervention where our action has maintained or enhanced SSSI status, extended the presence of a priority species (Environment Act), extended a semi-natural habitat or built or maintained a high wildlife value structure on third party land (that also improves raw water quality or resilience).

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	Retesting with customers found that 60% of customers supported this as a financial measure for both under and out performance, so we have retained this structure for the incentive
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
none	We've revised the ODI rate downwards, following further testing in our Choices research and subsequent triangulation

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	100	150	150	30	20
Penalty collar	60.0	90.0	90.0	18.0	12.0
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	150.0	225.0	225.0	45.0	30.0
ODI type	Out & under	Out & under	Out & under	Out & under	Out & under
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	833	833	833	833	833

Satisfactory sludge disposal

Description

Compliance with sludge use and disposal standards as part of the Environment Agency EPA requirements.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	Retesting with customers found that 60% of customers support this as a financial measure for underperformance, so we have revised the incentive accordingly.
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable). However performance for this measure has been 100% going back to the start of AMP5. So a collar will not be applied in this case.
ODI rate	
none	The incentive rate has been derived from the lower bound of Ofwat's accepted range for the sector.

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	100	100	100	100	100
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	907	907	907	907	907

Treatment works compliance

Water and wastewater treatment works compliance as per Environmental Performance Assessment (EPA) definition.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
Justification for proposed deadband is not sufficient	Based on our analysis of available sector data, we established that the proposed targets would require 7 out of 11 companies (including ourselves) to have no failing works, but that the other four could have between 1 and 7 failing works, but still achieve their targets. It's worth noting that that our deadband of 97.9% does not give us the headroom for multiple works failures, because a single treatment works failure would result in a compliance score of 97.9% (which means that a deadband of 99% would be misleading for us as it is not possible to have fewer than one works failing). By contrast, the deadbands proposed by the other companies would allow them to have between 3 and 17 works failing. Overall, if our deadband were removed, or even set at 99%, then we would have by far the most stretching target of the industry. Therefore we have concluded that the deadband should remain at 97.9%, consistent with 1 works failing in any year.
Caps and collars	
none	none
ODI rate	
Consistency across asset health measures	This is covered in section 4.3.2

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	100	100	100	100	100
Penalty collar	–	–	–	–	–
Penalty deadband	97.9	97.9	97.9	97.9	97.96
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	2,052	2,052	2,052	2,052	2,052

A.4 Making a positive difference to our communities

Inspiring customers to use water wisely

Number of people who have agreed to change their behaviour as a result of our educational activities.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	Further testing with customers established that 52% favoured making this bespoke measure reputational only, which we have now done.
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	797	797	797	797	797
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	–	–	–	–	–
ODI form	–	–	–	–	–
ODI rate	–	–	–	–	–

A.5 Wastewater safely taken away

Internal sewer flooding incidents

Description

The number of internal sewer flooding incidents per year, including sewer flooding due to severe weather events per 10,000 sewer connections.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
The justification for our proposed collar was not sufficient	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels. We've set our P10 collar to take account of the undue risks from of extreme weather. The lack of hydraulic flooding in our area means that we are not able to separately model the impacts of extreme weather on internal sewer flooding. Nevertheless, we still the potential for extreme weather and blockages to coincide does present an undue financial risk from extreme weather. So, we've modelled the collar for each year on the basis of the average annual collars (on a normalised basis) presented in the companies' Business Plan submissions (the values for TMS were excluded as outliers).
ODI rate	
The proposed rates is outside of Ofwat's accepted range for the sector	The revised rate falls within Ofwat's accepted range for the sector. This new value benefits from our fresh triangulation work, which incorporated the results from our Choices research – research that was based on the Ofwat's accepted ranges for the sector. The rate was further adjusted to align with the ODI ranges derived from a per-incident per household basis

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	1.68	1.63	1.58	1.44	1.34
Penalty collar	2.45	2.43	2.40	2.38	2.35
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	1.17	1.13	1.10	1.00	0.93
ODI type	Out & under	Out & under	Out & under	Out & under	Out & under
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	11,141	11,141	11,141	11,141	11,141

Pollution incidents

Description

The number of category 1 - 3 pollution incidents per 10,000km of wastewater network, as reported to the Environment Agency and Natural Resources Wales.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	As we were unable to retest customer preferences for the financial structure, we taken this to mean that we do not have majority support for outperformance payments on this measure, Therefore we have set it to be underperformance only
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels. Our P10 collar is also sufficient to take account of the undue risks from of extreme weather.
ODI rate	
Justification for proposed reward is not sufficient	The lower revised rate falls within acceptable ranges for the sector. This new value benefits from our fresh triangulation work, which incorporated the results from our Choices research – research that was based on the Ofwat's accepted ranges for the sector. The rate was further adjusted to align with the ODI ranges derived from a per-incident per household basis

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	138	137	117	117	116
Penalty collar	162	161	137	137	136
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	2,909	2,909	2,909	2,909	2,909

Sewer blockages

Description

The total number of sewer blockages on our network.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
none	This new value benefits from our fresh triangulation work, which incorporated the results from our Choices research – research that was based on the Ofwat's accepted ranges for the sector.

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	276	276	276	276	276
Penalty collar	287	287	287	287	287
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	265	265	265	265	265
ODI type	Out & under	Out & under	Out & under	Out & under	Out & under
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	13.72	13.72	13.72	13.72	13.72

Sewer flooding – extreme storms

Description

The percentage of the population served that are at risk of sewer flooding in a 1-in-50 year storm, split into five vulnerability bands.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	6.64	6.64	6.64	6.64	6.64
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	–	–	–	–	–
ODI form	–	–	–	–	–
ODI rate	–	–	–	–	–

Sewer collapses

Description

The number of sewer collapses per thousand kilometres of all sewers causing a reported impact on service to customers or the environment.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Justification for proposed reward is not sufficient	As we were unable to retest customer preferences for the financial structure, we taken this to mean that we do not have majority support for outperformance payments on this measure, Therefore we have set it to be underperformance only
Deadbands	
none	none
Caps and collars	
none	Given the overall reticence of our customers to financial ODIs and bill volatility, all financial PCs will have caps and/or collars (as applicable) set according to the P90 and P10 performance levels.
ODI rate	
none	The rate has been revised to align with the acceptable ranges for the sector derived on a per-incident per household basis

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	8	8	8	8	8
Penalty collar	11	11	11	11	11
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	6	6	6	6	6
ODI type	Under only	Under only	Under only	Under only	Under only
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	297	297	297	297	297

A.6 Lowest possible bills

Reduction in the number of void supply points

Description

The reduction in the number of residential and business void supply points.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
Justification for proposed reward is not sufficient	Changed to underperformance only, as further research found 53% though this bespoke measure should be reputational. We have now done this.
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	14	15	14	15	14
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	–	–	–	–	–
ODI form	–	–	–	–	–
ODI rate	–	–	–	–	–

A.7 An outstanding customer experience

Customer Experience Measure

The PC targets and ODI package for this measure will be determined by Ofwat

Developer Experience Measure

The PC targets and ODI package for this measure will be determined by Ofwat

Non-household customer experience

Description

Non-household customer satisfaction, as measured by a tracker survey.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	CMEX	CMEX	CMEX	CMEX	CMEX
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	Out & under	Out & under	Out & under	Out & under	Out & under
ODI timing	In-period	In-period	In-period	In-period	In-period
ODI form	Revenue	Revenue	Revenue	Revenue	Revenue
ODI rate	TBC	TBC	TBC	TBC	TBC

Commentary

The PC target will be set to match the target that Ofwat sets for CMeX. Financial ODIs will apply in this case, and will be linked to the CMeX ODI that Ofwat will calculate. The ODIs will be in-period and revenue based.

Welsh language services

Description

Percentage compliance with the Hafren Dyfrdwy Welsh language scheme.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	100	100	100	100	100
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	n/a	n/a	n/a	n/a	n/a
ODI form	n/a	n/a	n/a	n/a	n/a
ODI rate	n/a	n/a	n/a	n/a	n/a

A.8 A service for everyone

Priority Service Register growth

Description

The percentage of customers in vulnerable circumstances (CIVC) who are registered on our Priority Service Register (PSR) that we provide support to during a clean water incident.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	1.0	2.5	4.0	5.5	7.0
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	n/a	n/a	n/a	n/a	n/a
ODI form	n/a	n/a	n/a	n/a	n/a
ODI rate	n/a	n/a	n/a	n/a	n/a

Help to pay when you need it

Description

The percentage of struggling to pay customers supported through tailored schemes.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	70	71	72	72	73
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	n/a	n/a	n/a	n/a	n/a
ODI form	n/a	n/a	n/a	n/a	n/a
ODI rate	n/a	n/a	n/a	n/a	n/a

Commentary

We will apply non-financial ODIs in this case, and report our performance as per our explanation in the main Outcomes chapter of this resubmission. We had reservations about applying financial ODIs to PCs relating to customers in vulnerable circumstances, as it does not feel appropriate to have financial incentives for the work we do in this area and it does not sit well with the behaviour of a responsible business. We discussed this further with our CCG and following feedback from our CCG, we decided it would be best to apply non-financial ODIs. Our approach to reporting on our performance will ensure that our reputational ODIs are powerful to provide sufficient incentives to perform well, even though we do not have financial ODIs attached to this PC.

Effectiveness of the affordability support

Description

The percentage of customers who stay out of debt the 12 month period after they received payment support.

Feedback on and changes made to the ODI package

IAP feedback on ODI	Change made to ODI
Incentive type	
none	none
Deadbands	
none	none
Caps and collars	
none	none
ODI rate	
none	none

Final PC and ODI package

PC name	2020/21	2021/22	2022/23	2023/24	2024/25
PC targets for AMP 7	0	0	0	0	0
Penalty collar	–	–	–	–	–
Penalty deadband	–	–	–	–	–
Reward deadband	–	–	–	–	–
Reward cap	–	–	–	–	–
ODI type	NFI	NFI	NFI	NFI	NFI
ODI timing	n/a	n/a	n/a	n/a	n/a
ODI form	n/a	n/a	n/a	n/a	n/a
ODI rate	n/a	n/a	n/a	n/a	n/a

Commentary

We will apply non-financial ODIs in this case, and report our performance as per our explanation in the main Outcomes chapter of this resubmission. We had reservations about applying financial ODIs to PCs relating to customers in vulnerable circumstances, as it does not feel appropriate to have financial incentives relating to work we do in this area and it does not sit well with the behaviour of a responsible business. We discussed this option further with our CCG and following feedback from our CCG, we decided it would be best to apply non-financial ODIs. Our approach to reporting on our performance will ensure that our reputational ODIs are powerful to provide sufficient incentives to perform well, even though we do not have financial ODIs attached to this PC.

Annex B – further explanations on deadbands

B.1 Water quality compliance (CRI) – Action HDD.OC.A11

In its IAP Ofwat stated that:

> "We propose to intervene to ensure companies perform to the regulatory requirement of 100% compliance against drinking water standards. If a financial incentive did apply to this PC, as set out in the methodology we noted a deadband may be appropriate. It is important that the range of underperformance to the collar is adequate to provide clear incentives for companies to deliver statutory requirements.
>
> If the company proposes an underperformance payment rate for this PC, the company should set a deadband at 1.50 and collar at 9.5 for 2020-25. "

The development of CRI is a really positive evolution because it is a leading indicator of risk – it is not only a reflection of the safety or quality of drinking water at the tap.

The CRI measure is an innovative measure that promotes the development of a risk-based framework for drinking water. The DWI developed CRI to reveal potential risks so that companies could take action and prevent any issues arising that might impact the public water supply. It's also important to keep in mind that CRI is not a proxy for the quality of drinking water.

Furthermore, due to the design of CRI, performance will inevitably fluctuate above the deadband of 1.5 points. This has been clear since its development, with CRI scores having been volatile – even the most recent year has a standard deviation of nearly 3 (twice the current deadband).

This volatility in part reflects the fact that it is impacted by a range of factors, some of which are outside management control. For example:

- bad hygiene control at a customer tap;
- consequential discolouration by house building or other utility contractor that cause a burst;
- illegal hydrant use or connection to the network; or
- other company water quality imported and subsequently failing at taste and odour.

Other factors that impact CRI can be benign failures that pose no health risk to customers, nor risk of customer rejection. For example, short-term turbidity spikes at a water treatment works, an iron failure just above PCV, third-party minor contamination of a raw water source or single non-repeated coliform detection.

The implication is that throughout AMP7 we will observe many, if not most companies "failing". In the chart below we have illustrated performance against the deadband of 1.5 points.

Company performance against a deadband of 1.5 points

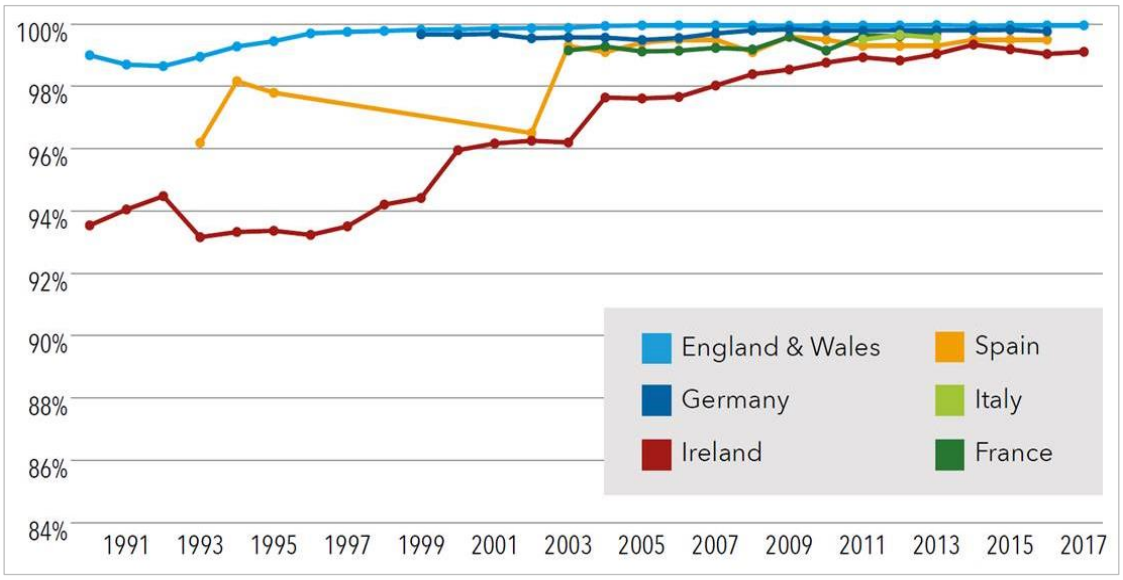
Company	2015/16	2016/17	2017/18
Affinity	1.2	2.5	6.7
Anglian	20.0	8.3	3.2
Bristol	3.2	1.5	0.0
Hafren	2.8	17.7	0.1
Northumbrian	n/a	5.8	2.0
Portsmouth	n/a	0.9	0.1
SES	n/a	0.3	0.2
Severn Trent	9.6	7.1	9.4
South East	7.2	4.9	2.0

Company	2015/16	2016/17	2017/18
South Staffs	3.0	2.8	6.0
South West	6.7	2.7	2.9
Southern	n/a	2.2	5.5
Thames	n/a	7.0	1.2
UU	3.0	4.5	1.3
Welsh	n/a	2.7	2.9
Wessex	0.2	0.7	0.5
Yorkshire	6.2	3.8	4.6

Failures

The fact that companies are failing Ofwat's deadband for drinking water quality target will undermine confidence in the best quality water Europe and drive the wrong behaviours. Across Europe, the UK has been proven to have the highest quality drinking water – surpassing Germany, France, Italy, Spain and Ireland (source Global Water Intelligence).

International overall compliance rates



However the application of the ODI deadband at 1.5 will inevitably create a perception that companies are failing water quality. This is despite the measure actually indicating that companies need to take action to prevent an issue arising in the future. Given the current state of debate in the sector, this nuance will inevitably be lost, and it's almost inevitable that there will be fear mongering with headlines such as, "Do not drink - a record 10 companies fail drinking water target" and "Is your water safe? 70% of companies fail their drinking water target every year"

A further consequence is the potential to drive the wrong behaviours across the sector, by discouraging sampling (to reduce risk of failure). This in turn would undermine the whole point of having early-warning signals, thereby actually creating a risk for the quality of drinking water. The logical conclusion is that effective target for CRI (identified by the deadband) needs to broadened or de-powered.

Overall, the most important feature of CRI is having visibility about the score to drive proactive actions to maintain high quality drinking water in the future. At the same time, we also need to ensure that CRI's deadband doesn't create the perception that companies are failing drinking water – which is why we understand the DWI advocated a reputational incentive.

Therefore, we have applied at deadband of 4.0 points in data table App1.

B.2 Treatment works compliance

We have 50 sewage treatment works, of which 43 have numeric consents. In the table below, we set out our analysis of the other companies targets and incentive designs, which shows:

- our incentive type is consistent with all but one company and customers supported this approach;
- we are one of seven companies with a target of 100%, which means there are four companies with a less stretching target; and
- all but two companies proposed a deadband and of those that did, HDD's was not the widest.

Company	19/20	24/25	Deadband	Outperformance payment	Underperformance payment	Penalty collar
Southern	99.03	100	99.08	Penalty only	-2.5	
Severn Trent	99.61	100	99	Penalty only	-1.57	
South West	100	100	99	Penalty only	-0.19	
Thames	99.2	100	99	Penalty only	-1.96	
Wessex	99.3	100	99	Penalty only	-0.55	97
Hafren Dyfrdwy	100	100	97.9	Penalty only	-0.002	
Welsh Water	100	100	97	Penalty only	-0.7	95
Anglian	98.9	99	98.6	Penalty only	-1.35	95
Northumbrian	98	99	97	Penalty only	-1.31	
United Utilities	98.5	99		Penalty only	-0.7	
Yorkshire	98.09	98.72		0.421	-0.421	

We have reviewed the cost assessment data and translated the ODI information from above, in order to calculate the number of works that each company could have a compliance failure and still be within their proposed target, deadband and, if applicable, penalty collar.

Company	numeric STWs	Proposed fails at 2024/5 PC	Proposed failures at deadband	As %	Proposed fails at penalty collar
Anglian*	717	7.2	10	1.4%	35.9
Northumbrian	158	1.6	4.7	3.0%	
UU	355	3.6	-	1% (at target)	
Southern*	279	0	2.8	1%	
Severn Trent	654	0	6.6	1%	
South West	305	0	3.1	1%	
Thames	340	0	3.4	1%	
Welsh	559	0	16.7	3%	27.8
Wessex	287	0	2.9	1%	8.7
Yorkshire*	257	3.3	-	1.3% (at target)	
Hafren*	43	0	1	2.3%	

We have used data from cost assessment datashare – which excludes water treatment works discharges – and we've inferred actual targets where overly specific targets were proposed. For example, UU data was corrected for an obvious error. Our analysis revealed that:

- at the proposed target, seven out of eleven companies (including us) would have zero failing works and the remaining four would have between one and seven failing works;
- our deadband represents one works failing. All other companies would have between three and 17 works failing;
- as it is not possible to have less than one works failing, setting our deadband at 99% would be equivalent to its removal, and would result in us having by far the most stretching target of the industry.

We have discussed this data, along with past performance with NRW, who support both our approach and the application of a deadband which equates to no more than one works failing. Therefore, we have retained at deadband of 97.9% in data table App1.

Annex C – detail of ODI rate comparisons

C.1 Comparing ODI rates

An important step in our framework for setting ODI rates is comparing our results to industry data to ensure that there are no outliers. This step is particularly important given the issues Ofwat identified in the IAP, whereby it found substantial variation across companies both on an absolute and per household basis[7]. For this reason Ofwat has asked companies in their business plan resubmission to *"…explain why their proposed ODI rates differ from a range around the industry average and to demonstrate that this variation is consistent with customers' underlying preferences and priorities for service improvements."*

C.2 Approach

To compare incentive rates for different ODIs we have utilised the headline methodology from Ofwat's IAP feedback. This involves comparing rates on a household basis (we refer to this as the ODI comparison methodology). Although there is a strong basis for including non-households in this comparison (given ODIs primarily relate to wholesale services), in it's the interests of simplicity we have used the households for our ODI comparison methodology.

For the most part this comparison is a relatively straightforward and involves dividing the incentive rate by the number of households across each measure.

However there is an element of complexity where the PC measure has been normalised[8].Dividing the normalised incentive rates by the number of household customers will produces results that create the appearance of low incentive rates for small companies, because the denominator is inevitably lower. However if we were to apply the ODI comparison methodology by first calculating the incentive rate per incident and then converting it to a household rate, we get a more balanced picture.

Internal sewer flooding

Company	Waste households (2022-2023)	Published ODI rates £m/incident per 10k connections		Initial comparison method £/HH/incident per 10k connections		Revised approach £/HH/incident	
		Under	Out	Under	Out	Under	Out
ANH	2,719,911	-21.122	10.994	-7.766	4.042	-0.029	0.015
HDD	22,171	-0.017	0.017	-0.789	0.789	-0.356	0.356
NES	1,182,708	-1.708	1.708	-1.444	1.444	-0.012	0.012
SRN	1,935,614	-5.497	5.039	-2.840	2.603	-0.015	0.013
SWT	723,114	-9.512	6.236	-13.154	8.623	-0.182	0.119
UUW	3,015,458	-2.200	2.200	-0.729	0.729	-0.002	0.002
WSX	1,216,627	-12.300	7.100	-10.110	5.836	-0.083	0.048
YKY	2,149,015	-8.435	8.435	-3.925	3.925	-0.018	0.018
Upper bound (0.5 st dev from mean)				-7.445	4.865	-0.149	0.133
Mean				-5.095	3.499	-0.087	0.073
Lower bound (0.5 st dev from mean)				-2.745	2.133	-0.025	0.013
What happens if we apply the mean to HDD							
£ per incident per 10k connections				-112,953	77,575	-4,281	3,589
£ per incident				-50,946	34,989	-1,931	1,619
£ per household per incident				-2.30	1.58	-0.09	0.07

Note – table only shows those companies included in the analysis. Excluded companies are those that Ofwat excluded for reasons of compatibility in its IAP analysis.

[7] Ofwat, Technical appendix 1 Delivering outcomes for customers, 2019, p. 10. https://www.ofwat.gov.uk/wp-content/uploads/2019/01/Technical-appendix-1-Delivering-outcomes-for-customers-final.pdf

[8] The normalisation of PCs is helpful because it allows service performance of small and large companies to be compared on a consistent basis.

This point can be illustrated using **internal sewer flooding**. In the table above we have applied the two methodologies to compare ODI rates. We have also calculated the sample statistics used by Ofwat and then considered the implications of applying the mean to HD. As can be seen above, the current comparison method identifies HDD as an outlier below the lower bound. However, were HDD to be moved in-range using the mean valuation, this would result in every customer paying almost £1.60 for a reduction in internal sewer flooding, which is 13 times higher than the next company SWT.

Length of network

There are three measures where the PC is normalised according to the relevant network length – pollution incidents, sewer collapses and mains bursts. Again, these are measures where the normalisation approach is extremely helpful for allowing meaningful comparisons of performance across companies, but when it comes to measuring value for individual customers this is best done by comparing the incentive rates on a per incident (or per increment) per customer basis.

Pollution incidents

Company	Waste households (2022-2023)	Sewer length	Published ODI rates £m/incident per 10,000km of sewer		Initial comparison method £/HH/incident per 10,000km of sewer		Revised approach £/HH/incident	
			Under	Out	Under	Out	Under	Out
ANH	2,719,911	45,637	-0.404	0.295	-0.149	0.108	-0.033	0.024
HDD	22,171	316	0.000	0.000	-0.001	0.001	-0.041	0.041
NES	1,182,708	16,689	-0.524	0.319	-0.443	0.270	-0.265	0.162
SRN	1,935,614	22,702	-0.341	0.323	-0.176	0.167	-0.078	0.074
SVE	3,847,903	58,197	-0.597	0.597	-0.155	0.155	-0.027	0.027
SWB	723,114	11,309	-0.091		-0.126		-0.112	
TMS	5,672,285	69,224	-1.123	0.892	-0.198	0.157	-0.029	0.023
UUW	3,015,458	42,346	-1.353	1.353	-0.449	0.449	-0.106	0.106
WSX	1,216,627	18,797	-0.290	0.260	-0.238	0.214	-0.127	0.114
YKY	2,149,015	30,918	-0.868	0.436	-0.404	0.203	-0.131	0.066
Upper bound (0.5 st dev from mean)					-0.309	0.253	-0.131	0.095
Mean					-0.234	0.192	-0.095	0.071
Lower bound (0.5 st dev from mean)					-0.159	0.131	-0.058	0.046
What happens if we apply the mean to HDD								
£ per incident per 10,000 km					-5,187	4,248	-66	49
£ per incident					-164,116	134,405	-2,100	1,565
£ per household per incident					-7.40	6.06	-0.09	0.07

Note – table only shows those companies included in the analysis. Excluded companies are those that Ofwat excluded for reasons of compatibility in its IAP analysis.

On Pollution Incidents, HDD is an outlier below the lower bound using the initial comparison method. However, if HDD were moved in-range using the mean valuation, this would result in every customer paying over £6.00 for each reduction in pollution incidents – 37 times greater than the next company NES. It's worth noting that our revised approach also identifies HDD as a below-range outlier, but by margins of around 30% on the underperformance payments and 10% on outperformance payments – something that we've taken into account in determining the incentive rate for this PC.

Sewer Collapses

Company	Waste households (2022-2023)	Sewer length	Published ODI rates £m/incident per 1,000km of sewer		Initial comparison method £/HH/incident per 1,000km of sewer		Revised approach £/HH/incident	
			Under	Out	Under	Out	Under	Out
ANH	2,719,911	45,637	-2.298		-0.845		-0.019	
HDD	22,171	316	-0.006	0.006	-0.289	0.289	-0.914	0.914
NES	1,182,708	16,689	-0.024	0.024	-0.020	0.020	-0.001	0.001
SRN	1,935,614	22,702	-2.944		-1.521		-0.067	
SVE	3,847,903	58,197	-0.983	0.983	-0.255	0.255	-0.004	0.004
SWB	723,114	11,309	-0.058	0.040	-0.080	0.055	-0.007	0.005
TMS	5,672,285	69,224	-0.480	0.512	-0.085	0.090	-0.001	0.001
UUW	3,015,458	42,346	-0.308	0.308	-0.102	0.102	-0.002	0.002
WSH	1,359,101	19,515	-0.140		-0.103		-0.005	
WSX	1,216,627	18,797	-0.190		-0.156		-0.008	
YKY	2,149,015	30,918	-0.104	0.104	-0.049	0.049	-0.002	0.002
Upper quartile					-0.272	0.179	-0.013	0.004
Upper bound – median					-0.103	0.090	-0.005	0.002
Lower bound – lower quartile					-0.082	0.052	-0.002	0.001
What happens if we apply the median to HDD								
£ per incident per 1,000 km					-2,284	2,000	-36.99	13.96
£ per incident					-7,226	6,327	-117.03	44.16
£ per household per incident					-0.33	0.29	-0.005	0.002

Note – table only shows those companies included in the analysis. Excluded companies are those that Ofwat excluded for reasons of compatibility in its IAP analysis.

If the incentive rates for Sewer Collapses are assessed using the initial comparison method, then then HDD is an above-range outlier (using a range defined by the median for the upper bound and the LQ for the lower bound). If HDD were brought into line with the upper bound valuation, then its incentive rate would be £0.29 per incident per household. Although this seems a relatively small amount, it is 70 times higher than the upper quartile value when the incentives are compared using the revised approach.

C.3 Mains bursts

Company	Water households (2022-2023)	Mains length	Published ODI rates £m/incident per 1,000km of mains		Initial comparison method £/HH/incident per 1,000km of mains		Revised approach £/HH/incident	
			Under	Out	Under	Out	Under	Out
AFW	1,429,373	16,958	-0.090	0.000	-0.063		-0.004	
BRL	519,486	7,010	-0.019		-0.037		-0.005	
HDD	88,789	2,702	-0.006	0.006	-0.069	0.069	-0.026	0.026
NES	1,917,877	26,821	-0.187	0.098	-0.097	0.051	-0.004	0.002
PRT	303,950	3,416	-0.002	0.002	-0.008	0.008	-0.002	0.002
SES	281,631	3,544	-0.027	0.016	-0.094	0.055	-0.027	0.016
SEW	896,357	15,383	-0.083		-0.093		-0.006	
SRN	1,078,156	14,185	-0.078	0.055	-0.073	0.051	-0.005	0.004
SSC	714,773	9,016	-0.029	0.058	-0.041	0.081	-0.005	0.009
SVE	3,371,235	47,373	-0.562	0.562	-0.167	0.167	-0.004	0.004
SWB	987,079	18,592	-0.031	0.006	-0.031	0.006	-0.002	0.000
TMS	3,683,414	32,738	-0.136	0.203	-0.037	0.055	-0.001	0.002
UUW	3,013,959	42,842	-0.008	0.008	-0.003	0.003	0.000	0.000
WSH	1,308,734	28,037	-0.043		-0.033		-0.001	
WSX	586,739	12,250	-0.077		-0.131		-0.011	
YKY	2,148,256	32,436	-0.588	0.588	-0.274	0.274	-0.008	0.008
Upper quartile					-0.095	0.075	-0.007	0.009
Upper bound – median					-0.066	0.055	-0.004	0.004
Lower bound – lower quartile					-0.036	0.030	-0.002	0.002
What happens if we apply the median to HDD								
£ per incident per 1,000 km					-5,855	4,904	-985	843.86
£ per incident					-2,167	1,815	-365	312
£ per household per incident					-0.02	0.02	-0.004	0.004

Note – table only shows those companies included in the analysis. Excluded companies are those that Ofwat excluded for reasons of compatibility in its IAP analysis.

The initial comparison method finds that HDD is an outlier above the upper bound (based on the range median) for Mains Bursts. If we were to align HDD's incentive rate with this upper bound, this would equate to a value of £0.02 per incident per household, more than double the value of the range upper quartile in the revised approach. In addition, the revised approach finds that HDD is a significant outlier beyond the upper quartile, and is something we've taken note of in the process for setting the incentive rate for this measure.

C.4 Leakage

Company	Water households (2022-2023)	Distribution input	Published ODI rates £m/MLD		Initial comparison method £/HH/1% DI		Revised approach £/HH/MLD	
			Under	Out	Under	Out	Under	Out
ANH	2,115,365	1,100	-0.365	0.219	-1.898	1.140	-0.173	0.104
BRL	519,486	270	-0.169	0.161	-0.878	0.836	-0.325	0.310
HDD	88,789	59	-0.002	0.002	-0.016	0.016	-0.028	0.028
PRT	303,950	167	-0.014	0.025	-0.076	0.137	-0.046	0.082
SES	281,631	159	-0.745	0.718	-4.200	4.043	-2.647	2.548
SEW	896,357	511	-0.681	0.379	-3.887	2.160	-0.760	0.422
SRN	1,078,156	515	-0.197	0.177	-0.941	0.844	-0.183	0.164
SVE	3,371,235	1,769	-0.325	0.325	-1.705	1.705	-0.096	0.096
SWB	987,079	563	-0.615	0.727	-3.509	4.144	-0.623	0.736
TMS	3,683,414	2,523	-0.355	0.290	-2.431	1.989	-0.096	0.079
UUW	3,013,959	1,712	-0.129	0.129	-0.733	0.733	-0.043	0.043
WSX	586,739	327	-0.330	0.220	-1.838	1.226	-0.562	0.375
YKY	2,148,256	1,130	-0.090	0.212	-0.474	1.117	-0.042	0.099
Upper bound (0.5 st dev from mean)					-2.445	2.191	-0.788	0.731
Mean					-1.737	1.545	-0.433	0.391
Lower bound (0.5 st dev from mean)					-1.030	0.900	-0.078	0.052
What happens if we apply the mean to HDD								
£ per 1% of DI					-1,543	1,372	-22,691	20,518
£ per MLD					-2,612	2,323	-38,412	34,735
£ per household per MLD					-0.029	0.026	-0.43	0.39

Note – table only shows those companies included in the analysis. Excluded companies are those that Ofwat excluded for reasons of compatibility in its IAP analysis.

The final consideration concerns Leakage, where the original approach was to compare incentives on the basis of the value per household per 1% of distribution input (DI). While this helps give insight on the degree of comparative and absolute stretch companies have set themselves, it is less informative for comparing incentive rates. This is best explained by reference to the range mean, which is of £1.545 per household per 1% of DI. For a large company, with DI of around 1,800 MLD, this would suggest that it would need to save 18 MLD for it to be worth £1.545 to each of its customers. By contrast, a small company like Hafren Dyfrdwy, with DI of 59 MLD would only need to save 0.59 MLD to be worth the same amount to each of its customers – suggesting that our customers place 30 times the value on saving one megalitre of water as those of a larger company. To resolve this challenge, the most appropriate method for comparing and understanding the benefit to customers is to expect them to value the volume saved and therefore compare incentive rates on a £ per-household per-MLD basis..

Using the initial comparison method, HDD's incentive rate is an outlier a long way below the lower bound valuation (that is half a standard deviation from the mean). The revised approach still has HDD identified as a below-range outlier, but to a much lesser extent – around half the value of the lower bound rather than 18%.